Evaluation of a recovery-oriented care training program for mental health care professionals

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EVALUATION OF A RECOVERY-ORIENTED CARE TRAINING PROGRAM FOR MENTAL HEALTH CARE PROFESSIONALS

Greet Wilrycx

The research described in this thesis was carried out at the Department of Tranzo, Tilburg University, the Netherlands.

I am very grateful to Kees van Aart (GGz Breburg) for the facilitation of this study and I would like to thank all the clients and professionals for their willingness to participate in the numerous assessments.

I want to make the reader aware of the use of the term 'patient' instead of 'client' in the English parts of this thesis. In respect of the recovery-oriented care principles, it is not appropriate to use the term patient. I have chosen for this term because of the international recognisability.

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General introduction

General introduction

With the increasing focus on recovery from severe mental illness, recovery has become a major concept in mental health organisations and psychiatric rehabilitation programs. The concept of recovery is often associated with somatic diseases and the way people can recover from a physical illness. The traditional medical-oriented model is illness focused, in which the disappearance of symptoms is seen as conditional. The new concept of recovery is not illness focused and the loss of symptoms is not regarded as a condition for recovery. Recovery these days is seen as a subjective process of the individual him/herself. Were recovery is often described as 'finding *a way of living a satisfying, hopeful, and contributing life, beyond the illness*.' (Boevink, 2005; Deegan, 1988, 1996). Nowadays, many mental health organisations are developing plans to alter their system of care in accordance with recovery-oriented principles. An increasing number of professionals believe that the mental healthcare system needs to focus on the individual recovery process of the mentally ill person. The mental health care and the mental health care organisations have the responsibility to create a facilitating environment where patients are able to recover from their illness.

It appears that within the current mental healthcare, recovery-oriented care demands a fundamental shift to a recovery philosophy. Therefore, those supporting the recovery movement emphasize the importance of educating mental health professionals. According to them, it is necessary to train professionals in order to achieve a change in attitude and vision towards recovery and recovery-oriented care. They state that professionals need to have basic skills and competencies in order to support or facilitate the process of recovery. However, because hard evidence is still lacking, the question how professionals can contribute to, and facilitate this recovery process of the severe mentally ill, is not yet answered.

Central in this thesis are the existing definitions on recovery, the stages of the recovery process, the development of a training program for professionals, the evaluation of recovery-

oriented instruments, the effects of the recovery-oriented training program, and finally, the core aspects of recovery-oriented care are discussed.

This chapter presents background information about the current definitions of recovery and it offers insight in the different stages a patient has to go trough to recover. The chapter closes with a description of the aims and outline of the thesis.

Definition

Recovery is emerging as a worldwide paradigm in mental health. Much confusion exists about the concept of recovery from severe mental illness, and the concept of recovery is still used in different ways. In an attempt to clarify the situation, Silverstein and Bellack (2008), drew attention to the difference between the subjective and objective part of the recovery process. They emphasize that it is important to make a distinction between recovery defined in objective outcome criteria and recovery defined in process criteria. Liberman and his colleagues (2002) mention some outcome-oriented criteria with the following components: 1) psychopathology 2) psychosocial functioning, and 3) the duration of meeting criteria 1 and 2. Most consumer and family organisations prefer to define recovery in terms of an ongoing process of change, i.e. the subjective experience of recovery. The emphasis of recovery defined as a subjective process, lies mainly within the individual, i.e. the unique process of the patients themselves, as well as with the psychologically-based recovery process which each patient needs to go through on their own (Anthony, 2000; Boevink, 2005; Deegan, 1988, 1995; Dröes, 2003). A commonly example of a process-related definition is offered by the National Consensus Statement on Mental Health Recovery (2004). They defined recovery as: '*a journey of healing and transformation enabling a person with a mental health problem to live a meaningful life in a community of his or her choice while striving to achieve his or her full potential'* (South London, 2010). Or, as stated by Antony: it is '*a deeply personal process*

of changing one's attitudes, values, feelings, goals, skills, and or roles' (Antony, 2000). According to him and others (e.g. Boevink, 2005; Deegan, 1988, 1996) recovery is '*finding a way of living a satisfying, hopeful, and contributing life*.' From this perspective, recovery describes the internal conditions of the recovery process and reflects the ongoing process of identity change (Silverstein & Bellack, 2008). In this way, recovery is a relatively new concept with minimal empirical evidence and in which the loss of symptoms is not regarded as a condition for recovery. Recovery is not the same as the disappearance of the symptoms, nor is it synonymous with cure. Therefore, the vision of recovery is now open to a different view of 'cure'. In order to recover from serious mental illness, patients need to pass through different stages (Weeks, Slade & Hayward, 2011).

Stages of the recovery process

With the aim to offer insight into the different stages of recovery, Gagne (2004) and Spaniol (2002) provide an overview of four different stages of the recovery process. These include: being overwhelmed by the illness, struggling with the illness, living with the illness, and living beyond the symptoms. They stated that each of these stages must be supported by offering recovery-oriented care. Young & Ensing (1999) provide a categorisation of some general aspects which typify the recovery process: according to them there are only three phases, each of which requires a different focus from the individual in order to recover.

These phases are as follows:

First phase: Initiating recovery

Focus 1: Overcoming 'stuckness'

Middle phase: Regaining what is lost and moving forward

Focus 2: Discovering and fostering self-empowerment

Focus 3: Learning and self-redefinition

Focus 4: Returning to basic functioning

Later phase: Improving quality of life

Focus 5: Improving quality of life

First phase

Recovery can be regarded as a process of change. In this first phase a patient is confronted with the disabilities from the illness. A person with a mental illness has to deal with a new situation. Suffering from a mental illness is sometimes irreversible and needs a considerable amount of adaptation. Psychologically, in this phase patients are often overwhelmed and entrapped by the disease. Generally speaking, the most difficult step during this phase is to accept the illness and the limitations which accompany it.

Middle phase

Once patients accept their disability and have developed a sense of hopefulness they have to discover and foster a sense of self-empowerment. They have to gain new perspectives about this new identity and the illness and have to return to a basic level of functioning. In this middle phase patients have to learn to believe in themselves, to learn to live with the illness, and have to reconstruct a stable sense of self that incorporates the illness as only one aspect of the self.

Later phase

According to Young and Ensing (1999), when a patient starts to believe in this ‘new’ self the focus in this later phase involves striving for and attaining a better quality of life. The main aspects of this phase of recovery are striving to attain an overall sense of well-being, and striving to reach new potentials of higher functioning. Within this final phase of recovery,

patients feel healthy enough to strive for ideals that are often associated with stable psychological health and movement towards self-actualisation. The quality of life is thereby improved.

Each patient needs to go through all these stages entirely on their own. The process of recovery is not a linear process, it is a process often characterised by major set backs. It is a process where relapse to an earlier stage can occur.

Recovery-oriented care

Although it is difficult to understand how the process of recovery actually works, it is becoming an increasingly important concept in mental healthcare organisations and psychiatric rehabilitation programs. It appears that recovery-oriented care demands a fundamental shift to a recovery philosophy within the current mental health care.

A major objective of the current psychosocial rehabilitation is to support the patient in his/her own recovery process (Wilken & Den Hollander, 2005). Many mental healthcare organisations are developing plans to alter their system of care in accordance with recovery-oriented principles. In addition, increasing numbers of professionals are coming to the conclusion that mental healthcare systems should focus on the individual recovery process of the mentally ill. In order to implement this new recovery vision and to achieve a culture change within the mental health organisation located in Breda, a recovery-oriented care project was developed. All professionals within this organisation were trained in this new recovery vision. The work presented in this thesis examines and evaluates the effectiveness of this recovery-oriented care training program for professionals.

Aims and outline of the thesis

The work in the present thesis has the following aims:

1. To give insight in the development of a recovery-oriented care training program for professionals working with patients with severe mental health problems in the Netherlands.

2. To evaluate the psychometric properties of the Dutch version of the Recovery Attitude Questionnaire (RAQ-7) and the Recovery Knowledge Inventory (RKI) in a sample of mental health care professionals working with patients with severe mental health problems.

3. To evaluate the psychometric properties of the Dutch version of the Recovery Promoting Relationship Scale (RPRS) and the Mental Health Recovery Measure (MHRM) in a sample of patients with severe mental health problems.

4. To evaluate the effects of the recovery-oriented care training program for mental health professionals on attitudes and knowledge about recovery.

5. To evaluate the effects of the recovery-oriented care training program for mental health care professionals on mental health consumer's outcomes.

Chapter 1 describes the development of a recovery-oriented care training program for professionals which was developed by two rehabilitation organisations (Stichting Rehabilitation '92 and STORM Rehabilitation) and one peer-support organisation HEE (Acronym for Herstel Empowerment en Ervaringsdeskundigheid; Recovery, Empowerment and Experiential expertise). The main goal of the training program was to create and promote

a new culture towards recovery from severe mental illness. The ‘Recovery and recovery-oriented care’ project was developed especially for the healthcare network ‘Impact’ (located in Etten-Leur and Breda) for long-term mentally ill patients. The main goal of the project was to create and promote a new culture towards recovery from severe mental illness.

Furthermore, this first chapter gives a short description about possible facilitators for the individual recovery process like there are: personal characteristics, personal experiences and live events of an individual and what others can do and offer to create a facilitating environment for the individual to recover. Making one’s own recovery story, empowerment and the development of experiential expertise are three supportive factors to facilitate the integration of/ or the development of a more positive identity after struggling through the first confrontational phase of having a severe mental illness.

A brief description of the two training seminars is given.

Chapter 2 deals with the evaluation of the psychometric properties of the Dutch version of the Recovery Attitude Questionnaire (RAQ) and the Recovery Knowledge inventory (RKI) and the Recovery Promoting Relationship Scale (RPRS), for possible application in the Netherlands. After a strict forward-backward translation procedure and a pilot study in which the content validity and the comprehensibility of the questionnaires were tested, the RAQ and the RKI were investigated among 210 mental health professionals. The RPRS was administered to 142 mental health care patients. The factor structure, reliability and internal consistency for the Dutch versions were examined using the same analysis strategy. Each questionnaire was submitted to a confirmatory factor analysis based on the factorial structure proposed by the original developers of the questionnaire. Based on factor analyses, subscales were formed for each questionnaire and the internal consistency (Cronbach’s alpha) for the Dutch versions was assessed.

Chapter 3 focuses on the evaluation of the Mental Health Recovery Measure (MHRM). In this chapter, the psychometric properties of the Dutch version of the MHRM are explored. Convergent and divergent validity of the MHRM was assessed using standardized measures of hope (Hope Herth Index, HHI), recovery-promoting professional competence (Recovery Promoting Relationships Scale, RPRS) and general physical health and well-being (Measure of Health-Related Quality of Life, RAND-36). A factor analysis was conducted and Cronbach's alphas of the MHRM-subscales were assessed. The construct validity was assessed by computing the intercorrelations of the MHRM, HHI, RPRS and RAND-36. Data were available of 212 patients. Seventy patients completed the MHRM, the HHI and the RAND-36. One hundred and forty-two patients filled in the MHRM and RPRS. An exploratory factor analysis was conducted in which the number of factors to retain was based on visual inspection of Cattell's scree plot and on the results of a parallel analysis. On the basis of the factor analysis, subscales were formed for the MHRM and the Cronbach's alphas were assessed. The construct validity was assessed by computing the intercorrelations of the MHRM, HHI, RAND-36 and RPRS.

Chapter 4 explores the effects of the recovery-oriented care training program for mental health care professionals in the Netherlands. The study uses a two group multiple intervention interrupted time-series design which is a variant of the stepped-wedge trial design. It is a longitudinal repeated-measures design where a sample is randomly divided into subsamples. These subsamples are observed at all time points but differ regarding the moment at which the experimental intervention is implemented. Using data from a longitudinal study of recovery changes in knowledge and attitudes of 210 mental health professionals towards

recovery were explored using the Recovery Attitude Questionnaire and the Recovery Knowledge Inventory. Data were collected at six moments: T0 to T 5 (see figure 1).

Chapter 5 describes an evaluation of the recovery-oriented care training program for mental health care professionals on mental health consumer outcomes. This study investigates whether the training program for professionals had a positive influence on the patients experienced hopefulness, self-empowerment and learning & new potential. The Mental Health Recovery Measure (MHRM) and the Recovery Promoting Relationship Scale (RPRS) were administered to a sample of 142 consumers with severe mental illness. A repeated measurement design with six measurement occasions was used. Separate analyses were carried out for the three MHRM and the two RPRS scales. Data were analyzed by means of the software package AMOS for structural equation modeling. Two series of regression analyses were carried out: a first series of analyses aimed at detecting a systematic trend in the average scale response and a second series to ascertain whether gender and age had a significant effect on the MHRM and RPRS.

Finally, in **Chapter 6,** the general discussion, the main findings of this thesis are summarized and discussed, followed by the study limitations and strengths as well as the implications of the findings for future research and clinical practice. The chapter ends with a short overview of some current developments about recovery and recovery-oriented care in the Netherlands.

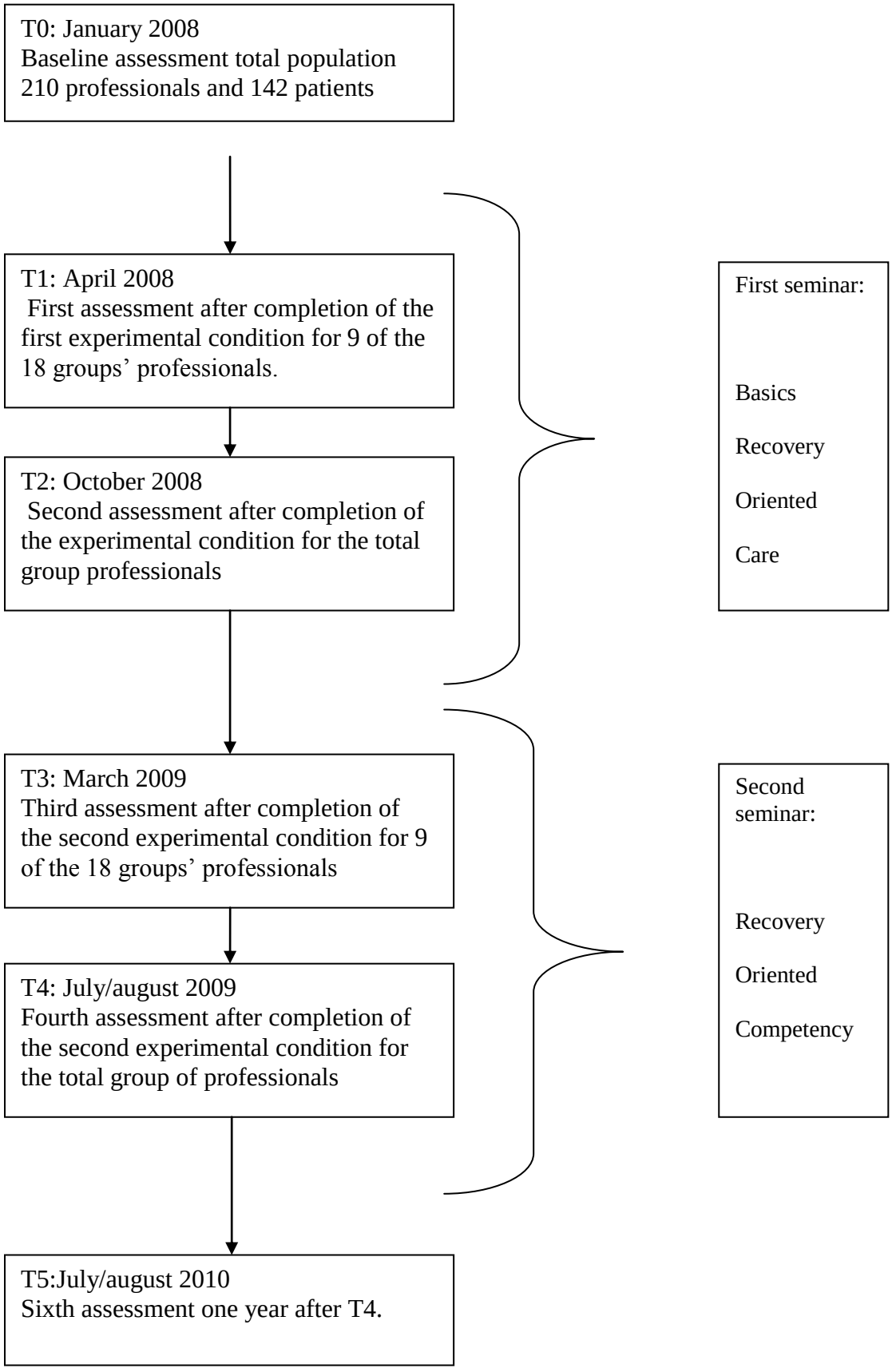


Figure 1: Flow chart of assessments.

References

Anthony, W.A. (1993). Recovery from mental illness: The guiding vision of the mental health service system in the 1990s. *Psychosocial Rehabilitation Journal, 16*, 11-23.

Anthony, W.A. (2000). A recovery-oriented service system: Setting some service-level standards. *Psychiatric Rehabilitation Journal, 23*, 159-168.

Bedregal, L.E., O'Connell M., & Davidson, L. (2006). The Recovery Knowledge Inventory: Assessment of Mental Health Staff Knowledge and Attitudes about Recovery. *Psychiatric Rehabilitation Journal, 30*, 96-103.

Boevink, W. (2005). Herstel, empowerment en ervaringsdeskundigheid. [Recovery, empowerment and experiential expertise.] *Passage, 14*, 7-18.

Brown, C.A., & Lilford, R.J. (2007). The stepped wedge trial design: A systematic review. *BMC Medical Research Methodology, 6,* 54. doi:10.1186/1471-2288-6-54

Borkin, J.B., Steffen, J.R., Ensfiels, J.J., Krzton, K., Wishnick, H., Wilder, K., & Yangarber, N. (2000). Recovery Attitudes Questionnaire: Development and Evaluation. *Psychiatric Rehabilitation Journal*, *24*, 95-102.

Deegan, P. (1988). Recovery: The lived experience of rehabilitation. *Psychiatric Rehabilitation Journal*, *11*, 11-19.

Deegan, P. (1995). Recovery and schizofrenia [Herstellen van schizofrenie]. *Deviant, 5*,18-21.

Dröes, J. (2003). Personal and professional values within the rehabilitation proces. [Persoonlijke en professionele waarden in het rehabilitatie proces]. *Passage, 12*, 209-218.

Gagne, C. (2004). *Rehabilitation: A way to recover*. [Rehabilitatie: een weg tot herstel.] Voordracht studiedag 'Rehabilitatie en herstel' Groningen; 14 June 2004. Groningen Lectoraat Rehabilitatie Hanzehogeschool.

Herth, K. (2005). Abbreviated instrument to measure hope: Development and psychometric evaluation. *Journal of Advanced Nursing, 17*, 119-128.

Hussey, M.A., & Hughes, J.P. (2007). Design and analysis of stepped wedge cluster randomized trials. *Contemporary Clinical Trials, 28*, 182-191. doi: 10.1016/j.cct.2006.05.007

Liberman, R.P., Koplewitch, A., Ventura, J., & Gutkind, D. (2002). Operational criteria and factors related to recovery from schizophrenia. *International Review of Psychiatry, 14*, 256-272. doi: 10.1080/0954026021000016905

Onken, S.J., Dumont, J.M., Ridgeway, P., Dornan, D.H., & Ralph, R.O. (2006). *Mental health recovery: What helps and what hinders?* A national research project for the development of recovery facilitating system performance indicators. International Recovery Perspectives: Implications-Innovations-Implementation, November 16-17, University of Toronto, Ontario.

Russinova, Z., Rogers, S.E., & Ellison, M.L. (2006). *Recovery Promoting Relationship Scale.* Boston, MA: Centre of Rehabilitation Sciences, Boston University.

Silverstein, S.M., & Bellack, A. S. (2008). A scientific agenda for the concept of recovery as it applies to schizophrenia. *Clinical Psychology Review, 28*, 1108-1124.

South London and Maudsley NHS Foundation Trust and South West London and St. George's Mental Health NHS Trust. (2010). *Recovery is for all. Hope agency and opportunity in Psychiatry. A Position Statement by Consultant Psychiatrists.* London, United Kingdom: SLAM/SWLSTG.

Van der Zee, K.I., & Sanderman, R. (1993). *Het meten van de algehele gezondheidstoestand met de Rand-36. een handleiding. [Assesment of the general health situation with the RAND-36: Manual]*. Groningen, the Netherlands: Northern Centre for Healthcare Research (NCH).

Van Gestel-Timmermans, J.A.W.M., Van den Bogaard, J.W., Brouwers, E.P.M., Herth, K., & Van Nieuwenhuizen, Ch. (2010). Hope as a determinant of mental health recovery: A psychometric ecvaluation of the Herth Hope Index-Dutch version. *Scandinavian Journal of Caring Sciences, 24*, 67-74.

Van Gestel-Timmermans, J.A.W.M., Brouwers, E.P.M., & Van Nieuwenhuizen, Ch. (2010). 'Recovery is Up to You', a peer run course. *Psychiatric Services, 61*, 944-945.

Weeks, G., Slade, M., & Hayward, M. (2011). A UK validation of the stages of recovery

instrument. *International Journal of Social Psychiatry, 57,* 446-454.

Wilken, J.P., & Den Hollander, D. (2005). *Rehabilitation and recovery, a comprehensive approach.* Amsterdam, the Netherlands: SWP.

Young, S.L., & Bullock, W.A. (2003) *The Mental Health Recovery Measure*. Available from the University of Toledo, Department of Psychology (918), Toledo, OH 43606-3390.

Young, S.L., & Ensing, D.S. (1999) Exploring recovery from the perspective of people with psychiatric disabilities. *Psychiatric Rehabilitation Journal, 22,* 219-231.

Chapter 1

Recovery-Oriented Care[1]

[1]Parts of this chapter are based on: Boevink, W., Prinsen, M., Elfers, L., Dröes, J., Tiber, G., & Wilrycx, G. (2009). Herstelondersteunende zorg, een concept in ontwikkeling. [Recovery-oriented care: A new concept.] *Tijdschrift voor Rehabilitatie*, *18,* 42-54.

Recovery- Oriented care

In order to implement the new recovery vision, and to achieve a culture change within the mental health organisation the GGzBreburg in the Netherlands, a recovery-oriented care project was developed with two rehabilitation organisations (Stichting Rehabilitation ’92 and STORM Rehabilitation) and one peer-support organisation HEE (Acronym for Herstel, Empowerment en Ervaringsdeskundigheid; Recovery, Empowerment and Experiential Expertise). The ‘Recovery and recovery-oriented care’ project was developed especially for the GGzBreburg, more specifically for ‘Impact’ the department for treatment of patients with severe mental illness which is located in Breda and Etten-Leur. The main goal of the project was to create and promote a new culture towards recovery from severe mental illness. The main issue is how treatment can promote the recovery process of patients with severe mental illness, and how the relationship with the professional might impede or facilitate recovery (Anthony, 2000; Boevink & Dröes, 2005; Hugo, 2001; Mental Health Commission, New Zealand, 2001, South London, 2010).

This chapter gives a short description of the factors that can facilitate the individual recovery process and describes the development of the training program which is evaluated on its effectiveness in this thesis.

Facilitators of the recovery process

The recovery process is thought to be influenced by both internal and external conditions (Barbic, Krupa & Armstrong, 2009). The internal conditions can be seen as those qualities, personal characteristics, personal experiences and live events of an individual which can influence the internal recovery process. External conditions can be seen as that what others can do, can offer, to create a facilitating environment for the individual to recover.

Internal conditions

Internal conditions that facilitate the recovery process of individuals who are recovering are, for example, personal attitudes towards the illness, the nature of one's life experiences, and the processes of change (Jacobson & Greenley, 2001).

The personal impact of the illness identity on the individual seems to be an important factor in the prognosis of how patients will recover (Yanos, Markus, Roe & Lysaker, 2010). Accepting a definition of oneself as mentally ill and assuming that mental illness means incompetence and inadequacy, will probably hinder the recovery process. This in turn may obstruct the actualisation of hope and empowerment, two essential characteristics necessary to recover. (Bird, Leamy, Le Boutillier, Williams & Slade, 2011). To facilitate the integration or development of a more positive identity besides the illness identity, three facilitating and supportive factors have been proposed (Boevink & Dröes,2007; Boevink, Prinsen, Elfers, Dröes, Tiber & Wilrycx, 2009).

- Making one's own recovery story
- Empowerment
-The development of experiential expertise.

These three factors will be shortly outlined below.

Making one's own recovery story

According to Boevink and colleagues (2009), Anthony (2004), and Lysaker and his colleagues (Lysaker, Buck & Roe, 2007; Lysaker, Ringer, Maxwell, McGuirea & Lecomte, 2010), the first condition in the recovery process is making an individual story, i.e. recapturing one's personal narrative about one's recovery process. Making a personal life experience story entails seeing what has happened (i.e. the way the mental illness was experienced) in a more hopeful perspective (Lysaker et al., 2010; Roe, Hassan-Ohayon,

Derhi, Yanos & Lysaker, 2010). This process often gives insight into oneself as well as insight into the processes of others. Such a process can help individuals; they can tell stories about what is right and wrong, as well as express their hopes and losses (Lysaker et al., 2007). In addition, disempowered narratives, in which themes dominated by internalised stigma prevail, can be gradually reframed and revised so that themes of agency, potential and personal strength come to predominate (Yanos et al., 2008). Together, all this can help to reassess the person's individual concept of their sense of self.

Empowerment

The next influential factor that may influence the recovery process is 'empowerment'. Nowadays, empowerment has become a popular term in mental health programs; it can be globally described as: '*the belief that one has power and control in one's life, including one's illness.*'(Anthony; 1993; Boevink et al, 2009; Farkas, 2007; Sullivan, 1997). Chamberlin (1997) offers a working definition of empowerment with a number of qualities, such as having decision-making power, having access to information and resources, having a range of options to make choices, as well as assertiveness, hope, self-esteem, etc. Empowerment is a multidimensional concept and describes an individual process rather than an event. The empowerment process includes '*reclaiming of one's competence, it increases feelings of mastery and control and increases the sense of strengths and self-confidence'* (Corrigan, 2006; Masterson & Owen, 1998; Van Weeghel, 2010). In this way, empowerment positively influences self-identity.

The development of experiential expertise

The development of experiential expertise is the third element which positively influences the recovery process of severe mental illness. When this developmental process is communicated

and shared with others with the same illness, reflection on how the personal process of recovery had taken place occurs. It is believed that sharing these experiences can generate more power, and strengthen the patient's position and their own recovery process (Bovenberg, Wilrycx, Bähler & Francken, 2010; Bovenberg, Wilrycx, Bähler & Francken, 2011; Corrigan, 2006; Van Gestel, Brouwers & Van Nieuwenhuizen, 2010). Patients who recover (in both a personal and public sense) gain more power over their lives and their social position. The benefits of experiential involvement ('expert by experience') within mental health care can be therapeutic in itself, as it offers the possibility to develop an identity other than the illness identity; this encourages greater social identity (Anglicare Tasmania, 2009). In Chapter six a short description will be given how experts by experience can be valuable on an organisational level.

External conditions

The influence of external conditions can be seen as that what others can do to create a facilitating environment for the individual to recover. For example, patients who have experienced a severe mental illness specifically mention the functional support of family, friends and self-help organisations, as well as help from patients with similar experiences and from social organisations. In this context, the contribution to (or facilitation of) the recovery process by professional health care seems to be relatively low (Carling, 1995). The statement that *'the self not the service professional is the agent of recovery'* whereby each recovering person must become the architect of his/her own recovery (Davidson, Borg, Marin, Topor, Mezzina & Sells, 2005) led us to believe that the influence of the mental health care professional and/or mental health care workers on this recovery process was considered to be minimal. It is stated that, to support the individual recovery process, it is essential that professionals are aware of the different stages of recovery (see introduction) and have

knowledge of the unique process of recovery. Regrettably, we still lack a concrete theory about recovery that is translatable into useful clinical interventions. Because professionals are expected to incorporate this new recovery vision into their routine practice, they need to master a basic set of competencies. The National Consensus Statement on Mental Health Recovery (United States Department of Health and Human Services, 2005) has identified ten basic components to be the focus of recovery-oriented care, including: self directioned, individualised and person-centred, empowerment based, holistic, non-linear, strengths-based, with peer support, respect, responsibility and hope. According to Schinkel and Dorrer (2007) the most fundamental recovery competency is the need for mental health workers to have a belief in and understanding of recovery. Without this belief in the possibility of recovery, implementation of the recovery principle will be less successful. Nowadays there is a growing belief that mental health professionals are able to inspire hope and can empower the mentally ill in their effort to overcome the disabling effects of a mental illness. Important to recovery are relationships and environments that provide hope, empowerment and choices, and offer opportunities which allow patients to reach their full potential as a contributing community member (Boevink & Dröes, 2005; New Zealand, 2001; Onken, Dumont, Ridgeway, Dornan & Ralph, 2006).

Other external conditions that can facilitate the individual recovery process are access to specific treatment facilities that stimulate the individual to recapture or develop their personal narrative (Lysaker et al., 2010), access to a recovery workbook program (Barbic, Krupa & Armstrong, 2009), access to illness management recovery programs (Bartholomew & Kensler, 2010; Levitt et al., 2009), and mental illness self-management programs (Cook et al., 2009; Segal, Silverman & Tenkin, 2010; Cook et al., 2011).

Nowadays much more weight is given on the nature of the working relationship with the professional (Slade, Williams, Bird, Leamy, LeBoutillier, 2012). A good recovery promoting

relationship based on reciprocity, integrity and empowerment seems essential in order to influence the recovery process.

Recovery- oriented care a new concept: Preconditions for recovery-oriented care.

Introduction

The premise to offer recovery-oriented care is that there has to be some recovery processes to support. Often, initial recovery processes take place but are not always recognised as such by the patients and/or by the mental healthcare professionals. One way to stimulate this process is to motivate patients to write their own 'recovery story'. As mentioned above, this helps them to recognise and reflect on the individual stage of recovery, and to verbalise their feelings about how they have experienced the different stages of the recovery process. Making a personal 'recovery story' and sharing this with professionals is not yet common practice. Neither mental healthcare consumers nor professionals are accustomed to think in terms of hope, personal strength, personal expertise and the possibilities of patients with severe mental illness. To achieve this 'new view' on patients with severe mental illness it is important that professionals are confronted with 'experts by experience', who can share their own recovery process with the professionals. In this way mental healthcare consumers and professionals can learn to recognise the process of recovery, get a better feeling for it, and understand how they can support (or inadvertently hinder) the recovery process.

Various professionals are involved in the recovery process, including therapists, nurses, managers and supporting services, each in their own way responsible for a specific part of the recovery process. It is important that the recovery vision is embraced by all professionals of the mental healthcare organisation, and that everyone shares the same positive attitude towards recovery (Tsai, Salyers & McGuire, 2011). Supporting recovery is the responsibility of all those involved with mental healthcare patients, where professional expertise remains

central. Recovery-oriented care involves the use of each type of professional expertise in a different way, in which the process of assessment, goal planning and treatment support the recovery process (Slade et al., 2011).

It is also important that the management of mental healthcare organisations adopt the recovery vision and facilitate recovery-oriented care. In order to create a new way of thinking towards recovery within all the layers of the mental health care network 'Impact' located in Breda and Etten-Leur, a recovery-oriented care training program for professionals was developed. The following section describes the development of this recovery-oriented care training program which will be evaluated in this thesis.

Development of the 'Recovery and recovery-oriented care' project

Goals of the project

With the recovery vision as reference background, the 'Recovery and recovery-oriented care' project is developed for the healthcare network 'Impact' of the GGz Breburg (located in Etten-Leur and Breda) for patients with severe mental illness. 'Impact' offers outpatient and inpatient care. (For more detailed information about the characteristics of the patients see page 55 of this thesis). The main goal of the project is to create and promote a new culture towards recovery from servere mental illness.

The following subgoals were formulated:

-Everyone with a severe mental illness is to be seen as having a life of their own, with a possibility to grow, with their own needs and preferences, and able to make their own decisions about the professional help they need for their own recovery process.

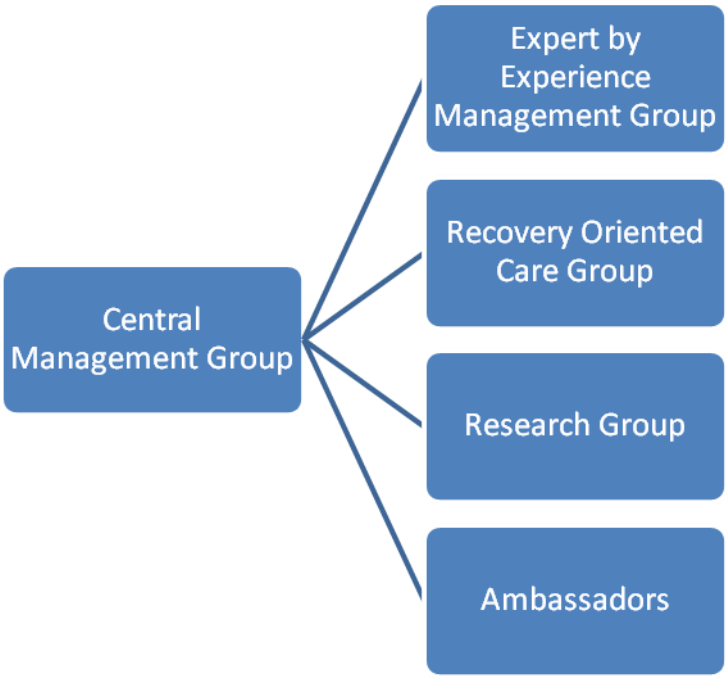
-The treatment is to be seen as a mutual process between mental healthcare patients and mental healthcare professionals.

-Mental healthcare professionals have to stimulate, support and facilitate the recovery process.
-The organisation is responsible for creating possibilities for the involvement of experts by experience in all the processes and layers of the organisation.

The recovery vision also encompasses the idea that a patient with severe mental illness should be seen as an equal partner in the mutual process of their recovery process and in the care policy of the organisation. Good therapeutic treatment, appropriate rehabilitation practice and assertive community treatment remain essential factors in the future. These factors need to be combined in order to achieve the ultimate goal of the care process, i.e. the personal and public recovery of patients with severe mental illnesses. The following section provides insight into the organisational structure of the recovery-oriented training program of the GGz Breburg.

Structure of the Dutch recovery project

The recovery and recovery-oriented care project is coordinated by a **central management group**. The project consists of four subgroups, each responsible for the development of a specific part of the project. These are **the expert by experience management group**, the **recovery-oriented care group, the research group**, and **the ambassadors**. In three of the four groups, mental healthcare patients and experts by experience from the Dutch peer support centre HEE (Herstel Empowerment en Ervaringsdeskundigheid; Recovery, Empowerment and Experiential expertise) participated. This was not the case for the research group. See figure 1.



Figuur 1: Organizational structure of the recovery and recovery-oriented care project.

The expert by experience management group consists of mental healthcare patients of Impact and professional experts by experience from the Dutch self-help/peer support organisation HEE. This group coordinates the various subsections. The professional experts by experience management group has organised information sessions for the mental healthcare patients in the first stage of the development of the recovery training program. They also have organised two peer-run courses and will be responsible for the further development of the process for all the patients within Impact.

The recovery-oriented care group is responsible for the development of the recovery-oriented care training program for the professionals. This team includes professionals from the organisation in Breda, two mental healthcare patients, and professionals from two rehabilitation organisations (Stichting Rehabilitation ’92 and STORM Rehabilitation) and from the peer-support organisation HEE.

The research group consists of professionals and researchers from the mental healthcare organisation Breda, the Trimbos Institute Utrecht, and the research department 'Geestdrift' of Tilburg University.

The group of 'ambassadors' consists of an equal number of mental healthcare patients and professionals from Impact. They are responsible for keeping the recovery vision alive and broadening it whenever possible.

Each group has its own mission within the project. The first step of the project was to inform all professionals about recovery and the principles of recovery-oriented care. The following section reflects on the specific development of the recovery-oriented care training program for professionals.

Recovery-oriented care training program for professionals

The recovery-oriented care training program is developed for all professionals who are in close contact with the mental healthcare patients of Impact, the department of severe mentally ill patients in Etten-Leur/Breda. Psychologists, psychiatrists, secretaries, managers and nurses participate in the program. The program consists of two seminars each given in a two-day tutorial every six months, with about 20 groups of 16 professionals (randomly selected) per group. The first seminar 'Basics of recovery and recovery-oriented care' (which was developed by the recovery-oriented care group) was given in the first half of 2008. This seminar was the first to be developed in the Netherlands and is described below.

Early in the development of this first 'Basics of recovery and recovery-oriented care' seminar it is decided to develop two additional seminars based on themes from the multidisciplinary guideline for schizophrenia (NVvP, 2012), i.e. diagnostics, treatments, attitude towards patients with a servere mental illness, and rehabilitation. Furthermore, the decision is made to modify these seminars based on input from the preliminary recovery program for mental

healthcare patients that was offered by the expert by experience management group in an earlier phase. During the first meeting, patients and professionals were asked what items they considered to be important to support the recovery process. Box 1 presents their responses.

Box 1: Important themes reported by patients and professionals to support the recovery process.

Mental healthcare patients: patients want to communicate; the professional should be genuinely interested and a good listener; patients appreciate the professional giving his/her own point of view. Important items patients need help with are: illness and general problems, finding accommodation, financial assistance, and help in contacting other relevant organisations.

Mental healthcare professionals: report a lot of work pressure. They want sufficient time to communicate and want to listen to their patients. They want the patient to have more autonomy/self-determination and possibilities for recovery, they want to empower them and encourage peer support. They want to cooperate with their patients but also want to motivate and support them.

Because 'unconditional listening' was frequently mentioned as an important condition for recovery-oriented care, this became the focus of the second seminar for professionals in which the attitude and behaviour towards the patients receives attention.

During the developmental phase of the program a second aim was to establish the main characteristics of recovery-oriented care and the competencies which are expected from a recovery-oriented care professional. These characteristics are reported in Box 2. These competence characteristics are also used as input for the second training session.

Box 2: Overview of the characteristics of recovery-oriented care in the initial phase of program development.

The mental healthcare provider:

- must give ‘full’ attention, has to be ‘present’
- should apply their theoretical background in an unpretentious and modest way
- facilitates and supports the making of the patient’s own ‘recovery story’
- recognizes and stimulates the power of the patient, individually and collectively
- acknowledges, utilizes and stimulates the experiential expertise of the patient
- acknowledges, utilizes and stimulates support from the patient’s ‘significant others’
- is focused on the alleviation of suffering
- increases the possibilities for more autonomy of the patient

At this stage of the program it is important to realise that it is impossible to develop a universal recovery guideline to suit everybody, because the recovery process is unique for each individual who has to recover from a mental illness.

The first (theoretical based) seminar was given the first half of 2008, during these six months every professional followed the first seminar of the training program. The second (practical oriented) seminar was given a year after the first seminar, at the beginning of 2009. After the theoretical first tutorial, the training program is followed by a practical tutorial in which the recovery theory is put into practice by using a role playing model.

The training seminars: brief description

First seminar: Basics of recovery-oriented care

The aim of this first seminar is to familiarise the professional with the concept of recovery and the principle of recovery-oriented care.

Tutorial day one

This tutorial is given by two experts by experience from the peer-support centre HEE. Recovery, empowerment and experiential expertise are central themes. The specific aim of this day is that experts by experience share their 'recovery story' with the professionals, which lead to discussion. At the end of day one, all professionals were asked to reflect on the question: Which factors were helpful within your own recovery process and which factors did you experience as an obstacle? This question is homework for day two.

Tutorial day two

This tutorial is given by an expert by experience accompanied by a professional rehabilitation teacher. The homework of tutorial day one will be evaluated and the theory of recovery-oriented care principles is given. After evaluation of the homework, the theory of recovery-oriented care is addressed.

The main characteristic of recovery-oriented care has to be the central position of the recovery process of the patient, i.e. the individual recovery story of the patient, increasing the patient's own empowerment, and the development of experiential expertise. It is emphasised that the recovery process is not a part of the treatment and rehabilitation programs or interventions, but rather that the treatment and rehabilitation programs or interventions are part of the recovery process. This means that the daily practice is directed by the individual process of

recovery and not by the accessibility of professional treatment protocols. Only the mental healthcare patient can decide what is/was helpful with regard to his/her own recovery process. An important question to deal with is: How can professionals positively influence the empowerment and recovery process of the patient, and how can the professional stimulate the patient to make his/her own story and eventually become an expert by experience (Bedregal 2006).

Short reflection first seminar

This first seminar is evaluated as being confrontational and emotional, and clearly showed that both mental healthcare professionals and patients have experienced problems which they need to recover from. Evaluation of the homework after tutorial day one showed that recovery is a highly individual process. It should be noted that something one person experiences as a helping factor can be experienced as a hindrance by another.

Second seminar: Recovery-oriented competence from the professional

The aim of this second seminar is to learn to recognise the process of recovery in practice, get a better feeling for it, and understand how the professional can support (or inadvertently hinder) the recovery process. This course differed from the first two-day seminar in that there is a two-week interval between the first and the second tutorial day, and that this second seminar focus on the recovery-oriented attitude of the professional.

Both tutorials are presented by an expert by experience and a professional rehabilitation teacher.

Tutorial day one

Five goals are formulated during this first tutorial:

1. The professionals can empathise with the goals of the patient and get a feeling for the phase of recovery that the patient is in.

2. The professional thinks in terms of possibilities and health rather than thinking in terms of limitations and disease.

3. The professional is more interested in the possibilities/opportunities for recovery of their patients and has to develop a greater orientation toward the individual recovery approach.

4. The professional understands how to support the recovery process by reflection on their own practical behaviour towards the patient.

5. At the end of this first tutorial day the professional has to have insight into his/her own possible shortcomings towards the recovery approach. The homework task was to reflect on their own behaviour towards patients during the two weeks following tutorial day 1, and to make a personal evaluation of their relationship with the patients.

Tutorial day two

Tutorial day two focuses on practical situations to achieve the goals that were formulated after tutorial day one. The main goal is to integrate a more recovery-oriented way of thinking about the patients and to achieve a more recovery-oriented attitude. During the second tutorial day the homework is evaluated. After that, each professional has to discuss a specific case. During the discussions the following questions are asked: Where did the professional experience a lack of recovery-oriented competency? How can the professional be ‘there', be present for the patient, and give the patient full attention? Does the professional apply his/her theoretical background in an unpretentious and modest way? Is the professional able to motivate the patient? How can the professional inspire hope in the patient? How does the professional empower the patient? How does the professional stimulate the autonomy of the patient? How

can the professional support the patient in the decision-making processes? These questions generated considerable discussion.

During this tutorial day there was a lot of role playing.

After this second seminar the professional has to be able to formulate a personal educational question for him/her to deal with their experienced inadequacies towards this new recovery approach. In this way any inadequacies have to be communicated and discussed with their manager.

Short reflection second seminar

This second seminar differs from the first because the extended use of a role playing model. A lot of professionals were confronted with their traditional way of thinking. During this second seminar it was important that the professional create a positive way of thinking. Their attitude has to change from a problem-oriented way of thinking to a solution-focused way of thinking.

A lot of discussion was necessary in order to create and establish a recovery way of thinking. It is important that the professional is continually stimulated to reflect on his/her own recovery-oriented behaviour and this was/is confrontational for a lot of professionals.

The aforementioned training program is nowadays given at different mental health organisations in the Netherlands, especially the first seminar. Because the recovery vision has to be embraced by all professionals working in the field of psychiatry it is necessary to create commitment for the implementation of the recovery vision on each layer of the organisation. That is why the developers created also a shorter version of the seminar for the higher management, already given in five mental health organisations. A short overview of further current developments about recovery and recovery-oriented care is given in chapter six of this thesis.

References

Anglicare Tasmania (2009). *Expert by Experience: Strengthening the mental health consumer voice in Tasmania.* Tasmania, Australia: The Social Action and Research Centre.

Anthony, W.A. (1993). Recovery from mental illness: The guiding vision of the mental health service system in the 1990s. *Psychosocial Rehabilitation Journal, 16,* 11-23.

Anthony, W.A. (2000). A recovery- oriented service system: Setting some service-level standards. *Psychiatric Rehabilitation Journal, 24, 159-168.*

Anthony, W. A. (2004). Bridging the gap between values and practice. *Psychiatric Rehabilitation Journal, 28,* 105-106.

Barbic, S., Krupa, T., & Armstrong, I. (2009). A randomized controlled trial of the effectiveness of a modified recovery workbook program: Preliminary findings. *Psychiatric Services, 60,* 491-497.

Bartholomew, T., & Kensler, D. (2010). Illness Management and Recovery in state psychiatric hospitals. *American Journal of Psychiatric Rehabilitation, 13,* 105-125.

Bird, V., Leamy, M., Le Boutillier, C., Williams, J., & Slade, M. (2011) *REFOCUS: Promoting recovery in community mental health services*. London, United Kingdom: Rethink.

Boevink, W., & Dröes, J. (2007). Herstelwerk van mensen met een psychische beperking en wat kunnen hulpverleners doen om hen te ondersteunen? [Recovery of severe mental illness

and the contribution of mental health care providers to facilitate and support recovery.] *Psychopraxis*, *7*, 11-6.

Boevink, W. (2005). Herstel, empowerment en ervaringsdeskundigheid. [Recovery, empowerment and experiential expertise.] *Passage, 4,* 7-18.

Boevink, W., Prinsen, M., Elfers, L., Dröes, J., Tiber, M., & Wilrycx, G. (2009). Herstelondersteunende zorg, een concept in ontwikkeling. [Recovery oriented care: a new concept.] *Tijdschrift voor Rehabilitatie, 18,* 42-54.

Bovenberg, F, Wilrycx, G., Bähler, M., & Francken, G. (2010). Ervaringsdeskundigheid: de stand van zaken. [Experiential expertise: An update]. *Psychologisch Maandblad voor Geestelijke Gezondheid en Verslaving, 8,* 38-39.

Bovenberg, F., Wilrycx, G., Bähler, M., & Francken, G. (2011). Inzetten van ervaringsdeskundigheid: pleidooi voor meer ervaringsdeskundigen in topfuncties. [Experiential expertise: Statement for more experiential workers within the higher mangement]. *Tijdschrift voor Rehabilitatie 1,* 45-54.

Carling, P.J. (1995). *Return to Community: Building support systems for people with psychiatric disabilities.* New York, NY: Guilford Press.

Chamberlin, J. A. (1997). Working definition of empowerment. *Psychiatric Rehabilitation Journal, 20*, 43-46.

Cook, J.A., Copeland, M.E., Jonikas, J.A., Hamilton, M.M., Razzano, L.A., Grey, D.D., …Boyd, S. (2011). Results of a randomized controlled trial of mental illness self-management using Wellness Recovery Action Planning. *Schizofrenia Bulletin, 14,* 1-11. doi: 10.1093/schbul/sbr012

Corrigan, P.W. (2006). Impact of consumer operated services on empowerment and recovery of people with psychiatric disabilities. *Psychiatric Services, 57,* 1493-1496. doi 10.1176/appi.ps.57.10.1493

Davidson, L., Borg, M., Marin, I., Topor, A., Mezzina, R., & Sells, D. (2005). Processes of recovery in serious mental illness: Findings from a multinational study. *American Journal of Psychiatric Rehabilitation, 8,* 177- 201.

Deegan, P. (1988). Recovery: The lived experience of rehabilitation. *Psychiatric Rehabilitation Journal, 11,* 11-19.

Deegan, P. (1995). Herstellen van schizofrenie. [Recover from schizofrenia]. *Deviant, 5,* 18-21.

Dröes, J. (2003). Personal and professional values within the rehabilitation proces [Persoonlijke en professionele waarden in het rehabilitatie proces]. *Passage, 12,* 209-218.

Dröes, J., & Witsenburg, C. (2012). *Herstelondersteunende zorg: behandeling, rehabilitatie en ervaringsdeskundigheid als hulp bij herstel van psychische aandoening*. [Recovery

oriented care: Treatment, rehabilitation and experiential expertise as help for recovery of mental illness]. Utrecht, the Netherlands: SWP.

Farkas, M. (2007). The vision of recovery: What is it and what it means for services. *World Psychiatry, 6,* 68-74.

Gagne, C. (2004). *Rehabilitatie: een weg tot herstel*. [Rehabilitation: A way to recovery]. Voordracht studiedag 'Rehabilitatie en herstel' Groningen; Lectoraat Hanzehogeschool, 14 June 2004.

Hugo, M. (2001). Mental health professionals' attitudes towards people who have experienced a mental health disorder. *Journal of Psychiatric and Mental Health Nursing, 8,* 419-425.

Jacobson, N., & Greenley, D. (2001). What is recovery? A conceptual model and explanation. *Psychiatric Services, 52,* 482-485.

Levitt, A.J., Mueser, K.T., DeGenova, J., Lorenzo, J., Bradford-Watt, D., Barbosa, … Chernick, M. (2009). Randomized controlled trial of illness management and recovery in multiple-unit supportive housing. *Psychiatric Services, 60,* 1629-1636.

Lysaker, P.H., Ringer, J., Maxwell, C., McGuirea, A., & Lecomte, T. (2010). Personal narratives and recovery from schizophrenia. *Schizophrenia Research, 121,* 271-276.

Lysaker, P.H., Buck, K.D., & Roe, D. (2007). Psychotherapy and recovery in schizophrenia:

A proposal of key elements for an integrative psychotherapy attuned to narrative in schizophrenia. *Psychological Services, 4*, 28-37.

Masterson, S., & Owen, S. (2006). Mental health service user's social and individual empowerment: Using theories of power to elucidate far-reaching strategies. *Journal of Mental Health, 15*, 19-34.

Nederlandse Vereniging voor Psychiatrie (2012): *Multidisciplinaire Richtlijn Schizofrenie*. [Multidisciplinair Guideline for Schizophrenia.] Utrecht, The Netherlands: De Tijdstroom B.V.

Mental Health Commission (2001): *Recovery competencies for New Zealand mental health workers*. Wellington, New Zealand: Mental Health Commission.

Plooy, A. (2009). Ervaringsdeskundigheid in de GGz. [Experiential expertise within mental health care.] *Deviant, 62*, 12-16.

Hendriksen-Favier, A., Nijnens, K., & Rooijen van, S. (2012). Handreiking voor de implementatie van herstelondersteunenende zorg. [Guidelines for the implementation of recovery oriented care]. Utrecht, the Netherlands: SWP.

Roe, D., Hasson-Ohayon, I., Derhi, O., Yanos, P.T., & Lysaker, P.H. (2010). Talking about life and finding solutions to different hardships: A qualitative study on the impact of narrative enhancement and cognitive therapy on persons with serious mental illness. *Journal of Nervous and Mental Disorders*, 198, 807-812. doi:10.1097/NMD.0b013e3181f97c50

Salyers, M. P., Godfrey, J. L., McGuire, A. B., Gearhart, T., Rollins, A. L., & Boyle, C. (2009). Implementing Illness Management and Recovery for consumers with severe mental illness. *Psychiatric Services, 60,* 483-490.

Schinkel, M., & Dorrer, N.(2007). *National programme for improving mental health and well-being. towards recovery competencies in Scotland: The views of key stakeholder groups.* Stirling, United Kingdom: The Scottish Government. Retrieved from http://www.scotland.gov.uk/Resource/Doc/173053/0048275.pdf

Segal, S.P., Silverman, C.J., & Temkin, T.L. (2010). Self-Help and community mental health agency outcomes: A recovery-focused randomized controlled trial. *Psychiatric Services, 61,* 905-910.

Slade, M. (2009). *100 ways to support recovery: A guide to mental health professionals. Rethink recovery series: volume 1.* London, United Kingdom: Rethink.

Slade, M., Williams, J., Bird, V., Leamy, M., & Le Boutillier, C. (2012). Recovery grows up. *Journal of Mental Health, 21,* 99-104.

Silverstein, S. M., & Bellack, A. S. (2008). A scientific agenda for the concept of recovery as it applies to schizophrenia. *Clinical Psychology Review, 28,* 1108-1124.

South London and Maudsley NHS Foundation Trust and South West London and St. George's Mental Health NHS Trust. (2010). *Recovery is for all. Hope agency and opportunity*

in Psychiatry. A Position Statement by Consultant Psychiatrists. London, United Kingdom: SLAM/SWLSTG.

Spaniol, L., Gagne ,C., & Koehler, M. (1997). Recovery from mental illness: What it is and how to assist people in their recovery. *Continuum, 4*, 3-15.

Spaniol, L. S., Wewiorski, N. J., Gagne, C., & Anthony, W. A. (2002). The process of recovery from schizophrenia. *International Journal of Psychiatry, 14*, 327-336.

Sullivan, W.P. (1997). *A long and winding road: The process of recovery from severe mental illness.* In L. Spaniol, C. Gagne and M. Koehler (Eds.), *Psychological and social aspects of psychiatric disability* (pp. 14-24). Boston, MA: Center for Psychiatric Rehabilitation.

Tsai, J., Salyers M.P., & McGuire, A.B. (2011). A cross-sectional study of recovery training and staff attitudes in four community mental health centers. *Psychiatric Rehabilitation Journal, 34*, 186-93.

Tsai, J., Salyers, M.P., & Lobb, A.L. (2010). Recovery-oriented training and staff attitudes over time in two states. *Psychiatric Questions, 81*, 335-47.

Van Gestel-Timmermans, J.A.W.M., Brouwers, E.P.M., Assen, M., van, Bongers, I.L., & Nieuwenhuizen, Ch. van (2011). Profiles of individually defined recovery of people with major psychiatric problems. *International Journal of Social Psychiatry, 58*, 521-531.

Van Gestel-Timmermans, J.A.W.M., Brouwers, E.P.M., & Nieuwenhuizen, Ch. van (2010).

Recovery is up to you, a peer run course. *Psychiatric Services, 61,* 944-945. doi: 10.1176/appi.ps.61.9.944-a

Weeks, G., Slade, M., & Hayward, M. (2011). A UK validation of the stages of recovery instrument. *International Journal of Social Psychiatry, 57*, 446-454.

Weeghel, van J. (2010). Verlangen naar volwaardig burgerschap; maar wat doen we in de tussentijd? [Towards an equal citizenship; What can professionals do in the time between?] Tilburg University, The Netherlands: PrismaPrint.

Yanos, P.T., Roe, D., Markus, K., & Lysaker, P.H. (2008). Pathways between internalized stigma and outcomes related to recovery in schizophrenia spectrum disorders. P*sychiatric Services, 59,* 1437-1442.

Chapter 2

Psychometric properties of three instruments to measure recovery

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(2012). *Scandinavian Journal of Caring Science, 26,* 607-614.

Abstract

The process of recovery is gaining more and more attention within health care for patients with severe mental illness. Therefore, instruments to measure recovery can be useful for clinical and research purposes. This study evaluates the psychometric properties of three instruments pertaining to recovery for possible application in the Netherlands. The Recovery Attitude Questionnaire and the Recovery Knowledge Inventory were investigated among 210 mental health professionals, and the Recovery Promoting Relationship Scale was administered to 142 mental health consumers.

The factor structure, reliability and internal consistency were examined using the same analysis strategy. First, each questionnaire was submitted to a confirmatory factor analysis based on the factorial structure proposed by the original developers of the questionnaire. In case of a bad fit, an exploratory factor analysis was conducted. Based on factor analyses, subscales were formed for each questionnaire and the internal consistency (Cronbach's alpha) was assessed. In all three cases the final principal axes solution was obliquely rotated by means of the OBLIMIN rotation procedure.

Results show that the originally proposed factor structure did not yield an acceptable fit in any of the Dutch samples. After analyses, three instruments are proposed that are suitable for research on recovery-oriented competencies and the recovery-promoting relationship for professionals working with people with serious mental illness in the Netherlands.

Keywords: recovery scales, factor structure, internal consistency

Introduction

Recovery in general, and from serious mental illness in particular, is frequently explored by mental health consumers/providers, researchers and policymakers. However, the recovery concept is applied in different ways and there is ambiguity about the nature of the concept. The definition of recovery currently considered to be most appropriate, is a function of *who* is defining it (e.g. mental health consumers or researchers) and for *what purpose* it is defined (1). Nowadays, many mental health organisations develop plans to adapt their system of care in accordance with recovery-oriented principles. The main question is how treatment can facilitate the recovery process, and how the relationship with the mental health consumer may impede or facilitate recovery (2, 3).

The issue of staff attitudes and skills has been the subject of several longitudinal studies (3-4-5-6-7). These studies show that specific staff skills and behaviour contribute to the process of recovery, including effective communication, providing hope, appropriate self-disclosure, and a mutual equal and respectful partnership in treatment. According to some, however, it is less clear how to ensure that staff members actually demonstrate the competencies that support recovery (1). It is also unclear whether it is possible to train these skills, and which factors are most important to train to ensure proper treatment or care with regard to recovery.

In view of the increasing importance of studying recovery and recovery-related competencies, it is essential to use psychometrically sound instruments to assess recovery-oriented competencies and the recovery-promoting relationship. Until now, no instruments are available in the Netherlands to measure these concepts. Based on a literature review and a study of the Compendium of Recovery Measures (8), three suitable instruments were selected to be evaluated: the Recovery Attitude Questionnaire (9), the Recovery Knowledge Inventory (10) and the Recovery Promoting Relationship Scale (11). These instruments were selected

based on their applicability, reliability, validity and their suitability to evaluate a recovery-oriented training program focused on knowledge and attitudes toward patient recovery.

The aim of the present study is to establish the psychometric properties of these (translated) instruments to address recovery-oriented competencies, and to revise these instruments for use in the Netherlands.

Subjects and methods

Professional-based sample

Of the 270 professionals invited to participate in this longitudinal study, 210 agreed. Their average age was 43.3 (range 20-60) years, and 74% of the sample was female. Their mean period of employment in the mental healthcare sector was 13.2 years, and their mean period of experience dealing specifically with long-term psychiatric disabilities was 11.3 years. The sample of professionals consisted of psychiatrists, psychologists, psychiatric nurses, day care professionals, care assistants, and other professionals in close contact with clients. The aim of the educational program was to create a culture change towards recovery in the whole organization. That is why other staff members, such as managers and secretaries working in different settings, were also included in the study. Table 1 presents an overview of the demographic characteristics of the study group.

Table 1 Demographic characteristics of the professional healthcare sample

	Total group n=210	
	n	*%*
Female	157	74
Working Discipline		
Psychiatrist/Psychologists	6	3
Psychiatric nurse	117	56
Day care professional	32	15
Placement supporter	11	5
Case manager	10	5
Care assistant	10	5
Managers	12	6
Information not available	10	5
Setting of employment		
Clinical Intensive care	39	19
Crisis intervention team	6	3
Sheltered and protected care	64	31
Ambulatory care	11	5
Day activity centre	42	20
Care: general*	28	13
Information not available	20	10

*Managers, secretaries, administrative employees, pastors

Sample of mental health consumers

A total of 360 patients with long-term psychological/psychiatric problems treated at the Psychiatric Institute 'Carea' (Breda, the Netherlands) were approached by telephone or in person. The inclusion criteria were: age over 18 years, adequate comprehension of the Dutch language, and diagnosed with a long-term mental health diagnosis. There were no specific exclusion criteria.

A total of 360 patients with long-term psychological/psychiatric disorders from the mental health care organization 'Carea' were approached. A sample of 142 patients (response rate 39%) agreed to participate and provided written informed consent. The average age of the participants was 49.1 (range 18-78; SD 13.1) years and of the non-participants 50.6 (range 18-93; SD 17) years. For the participants, the mean number of years of treatment was 14.16 (SD 10.3) years. Table 2 presents the characteristics of the patients that participated and the patients that did not participate.

There was no significant difference between the two groups with respect to age (t = -0.93, df=358, p=0.35). To compare the two groups for differences on the psychiatric diagnosis (main diagnosis on Axis I and II) and gender, chi-square independence tests were performed. The only significant result was found for gender: χ^2=9, 22 (df=1, p=0.002), whereby significantly more females than males agreed to participate. There were no significant differences between the two groups for Axis I (χ2=7.115, df=6, p=0.31) and Axis II (χ2=5.620 df=6, p=0.47) diagnoses. Therefore, we can conclude that, except for gender, no systematic differences existed between the participants and the non-participants. Prior to the start of the study, the authors have approached the regional Medical Ethics Approval Committee for Mental Health Care Institutions (METIGG). According to the Medical Research Involving Human Subjects Act (WMO) the study did not require ethical approval.

Table 2 Characteristics of the mental healthcare consumers

	Participants *n (%)*	*Non- participants* *n (%)*
Female	89 (63)	101 (46)
Psychiatric characteristics		
DSM IV-R classification Axis I		
Schizophrenia, psychotic disorders	46 (35)	91 (44)
Mood disorders	40 (31)	59 (29)
Anxiety disorders	8 (6)	15 (7)
Substance-related disorder	7 (5)	8 (2)
No diagnosis on Axis I	4(3)	5 (3)
Other (including ADHD and ASD)	25 (19)	30 (15)
DSM IV-R classification Axis II		
Cluster A	4 (3)	14 (7)
Cluster B	20 (16)	29 (14)
Cluster C	17 (14)	21 (10)
NOS	23 (18)	44 (21)
Other	6(3)	8 (4)
No diagnosis on Axis II	42 (33)	78 (37)

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Instruments

The instruments included in the present study are: the Recovery Attitude Questionnaire (9), the Recovery Knowledge Inventory (10), and the Recovery Promoting Relationship Scale (11). The three questionnaires were translated into Dutch using the backward-forward translation procedure (12). First, translations into Dutch were made by five English/Dutch bilinguals. Any obvious differences between the English and Dutch versions were then

discussed with a native English speaker. This process produced a consensus version of Dutch items which was subsequently translated back into English by two other native speakers. Differences between this English version and the original were discussed by a fourth English native speaker. The total process produced a pilot version of the three questionnaires.

1. *The Recovery Attitude Questionnaire (RAQ)*

The RAQ is a Anglo-American self-report questionnaire for professionals (9). It was developed in Australia and designed to measure respondent's attitudes about the belief that people can recover from serious mental illnesses. According to the developers of the Recovery attitudes Questionnaire (9), the degree of adoption of recovery-oriented principles and practices by mental health professionals may be influenced by their attitude and hopefulness regarding the possibility of recovery. The developers believe that the attitude and hopefulness in assisting consumers with their individual recovery process, can improve with training. Borkin and her colleagues therefore developed the RAQ-instrument to assess attitudes toward recovery related outcomes such as empowerment, satisfaction with life, improved quality of life, increased opportunities and environmental impacts. To develop the scale, people with mental disorders, family members and professionals were surveyed. Originally, a 16-item instrument was developed. After a principal component analysis (PCA), the 16-item instrument was reduced to a 7-item scale. The RAQ items are rated on a 5-point Likert scale, ranging from 1 (strongly agree) through 5 (strongly disagree). The original version contains two subscales: the first one 'Recovery is difficult and needs faith' consists of four items, and the second one 'Recovery is difficult and differs among people' of three items. The original reliability scores (Cronbach's alpha) for the two subscales were 0.65 and 0.64, respectively, and 0.70 for the total RAQ. Despite the relatively low internal consistency

scores, reasons to select this instrument were its ease of administration, its brevity, and the current lack of other validated questionnaires on attitudes towards recovery.

2. *The Recovery Knowledge Inventory (RKI)*

The original RKI is a Anglo-American self-report questionnaire for professionals (10). This instrument was developed as part of a state-wide initiative in Connecticut (USA) to make all behavioural health services more recovery oriented (6). It was developed to assess the nature of recovery-oriented care. Bedregal and his colleagues were aware of the fact that the concept of recovery offers a different view of 'cure' within mental health care. The concept of recovery is traditionally associated with somatic diseases and how people can recover from a physical illness. Since the mid- 1980s, however, a great deal is written about mental health recovery from another perspective. According to the developers of the RKI, persons who are recovering are often capable of identifying, choosing, pursuing personally meaningful goals and aspirations beyond or despite continuing to suffer the effect and side effects of mental illness (10). Recovery in this sense is not necessarily the same as the disappearance/absence of symptoms - it is not synonymous with 'cure'. The RKI was based on this new vision of recovery.

To measure providers' knowledge and attitudes towards this new vision a 36- item instrument was firstly developed. After a principal component analysis (PCA) the 36- item instrument was reduced to a 20-item scale. The RKI items are rated on a 5-point Likert scale, with answer categories ranging from 1 (strongly disagree) to 5 (strongly agree).The 20 items cover four domains, namely: 1) roles and responsibility in recovery, 2) non-linearity of the recovery process, 3) the roles of self-definition and peers in recovery, and 4) expectations regarding recovery. Cronbach's alpha for the four domains were 0.81, 0.70, 0.63 and 0.47, respectively. Due to the lack of other instruments to measure staff knowledge/attitudes about

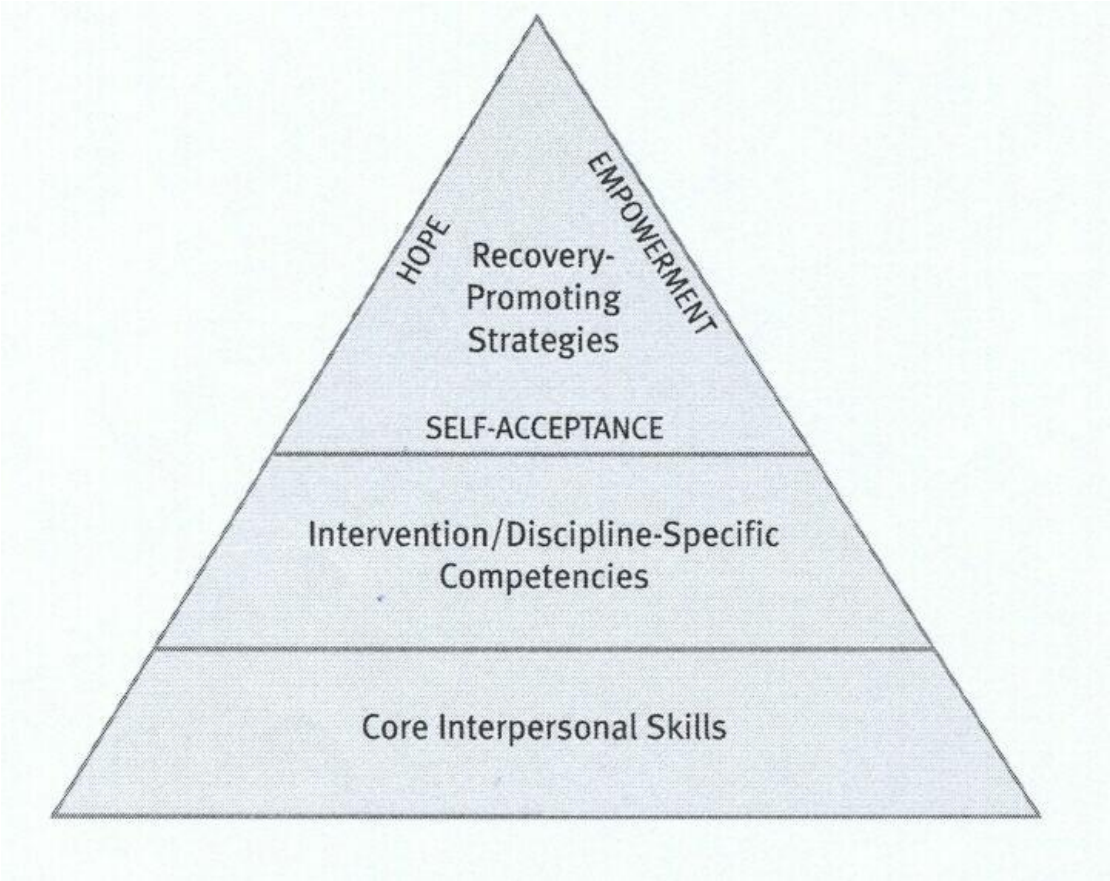
recovery, and despite the poor original statistical results, we decided to re-investigate the psychometric properties of this scale.

3. The Recovery Promoting Relationship Scale (RPRS)

The RPRS is a Anglo-American self-report questionnaire for patients (11). It was developed in Boston, USA and based on findings from an anonymous internet survey inquiring about attitudes, skills and techniques in relation to mental health. According to the developers of the Recovery Promoting Relationship Scale (11), the theory behind recovery-oriented care is that the professional is able to influence recovery and the 'recovery journey' of the mental health consumers; they can impede and facilitate the process (13). Strong clinician-patient relationships, relational continuity and a caring collaborative approach facilitate recovery from mental illness and improve quality of life (14). Russinova and her colleagues (11) offer a conceptual hierarchical model of three components of mental health's providers' professional competence. In their 'pyramid model of recovery promoting professional competence', three key components in the structure of mental health providers' professional competence were identified. Firstly, the core interpersonal skills, such as the ability to maintain a therapeutic alliance with the mental health consumer. According to this model, the providers' core interpersonal skills constitute the basis for effective delivery of any intervention. The second key component is the intervention/discipline specific competencies that are needed to the different modalities of services provide to persons with serious mental illnesses, for example case management and rehabilitation counselling. According to the authors, professionals have to be trained in these discipline-related interventions. Finally, the third component is the complex set of skills that specifically target the recovery process of clients with serious mental illnesses. These skills determine providers' ability to use different strategies that promote the mental health consumer's hopefulness, empowerment and sense of

self- acceptance. According to the authors, without the use of recovery promoting strategies, treatment would be less optimal. Figure 1 shows the conceptual hierarchical pyramid model of the three components of mental health's providers' recovery promoting professional competence'.

Figure 1 The 'Pyramid Model of Recovery-Oriented Professional Competencies' (11).



The developmental of the RPRS was based on the above mentioned pyramid model of recovery promoting professional competence. The original RPRS is a 24-item scale that measures the generic components of mental health providers' recovery-promoting professional competence: a) the core interpersonal skills and b) skills to utilize recovery-promoting strategies. For the latter component, three subcomponents of strategies representing the provider's skills to enhance the client's hopefulness, empowerment and self-

acceptance, are given. The RPRS items are rated on 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree), and with 5 indicating not applicable. The original scale demonstrated a high level of internal consistency alpha of 0.95 for the total scale; good test and re-test reliability, and acceptable concurrent criterion validity (11).

Procedure

Recruitment of the professional sample

All mental healthcare workers of Carea were asked to participate in a longitudinal educational program about recovery, including an evaluation study on the effect of the educational program. Carea stands for 'Care and reactivation department of serious mentally ill people of Breda in the Netherlands'. All participants were verbally informed by their managers, received an information brochure about the program, and gave informed consent before the study started. The educational program was mandatory for all professionals. The manager of the department explicitly encouraged participation in this research. The questionnaires were sent by mail and participants were asked to complete and return these questionnaires within two weeks.

Recruitment of the mental health consumers

A total of 360 patients with long-term psychological/psychiatric disorders from the Psychiatric Institute Carea were approached. Specifically, patients receiving long-term ambulatory or residential psychiatric care participated. Only participants aged 18 years and older and with a good understanding of the Dutch language were approached personally or by telephone (Table 2). A sample of 142 (i.e. 39% of the approached population) agreed to participate. The remaining 61% either felt unable to participate, or had no interest. Prior to

participation, all participants were verbally informed by their caretaker(s), received written information about the program, and all provided informed consent.

Statistical analyses

For all questionnaires the same analysis strategy was applied. First, each questionnaire was submitted to a confirmatory factor analysis (CFA) that was based on the factorial structure proposed by its original developers. CFA was carried out using the software package M*plus* Version 5.0 and SPSS 17 (15, 16). In these Dutch samples, the originally proposed factor structure did not yield an acceptable fit for any of the three questionnaires. In the next step, an exploratory factor analysis (EFA) was conducted using the appropriate procedures from SPSS 17. The number of factors to retain in a principal axes factor solution was based on visual inspection of Cattell's scree plot and on the results of a parallel analysis, as recommended by Fabrigar et al. (17). All principal axes solutions were obliquely rotated by means of the OBLIMIN rotation procedure. Factor loadings larger than 0.30 in absolute value were considered salient. On the basis of the factor analyses, subscales were formed for each questionnaire and their reliability (in terms of Cronbach's alpha) was assessed. A value of 0.70 for alpha is usually considered the minimum for any scale. For the RKI and RAQ the data of 203 valid cases of professionals were analyzed, and for the RPRS the data of 142 clients were analyzed.

Results

1. *The Recovery Attitude Questionnaire*

The two-factor solution reported by the original developers of the RAQ failed to provide an acceptable fit in the Dutch sample of professionals: χ^2=51.369 (df=13, p=0.000), TLI = 0.645, RMSEA=0.119, SRMR=0.064. Consequently, an EFA was carried out. Both the scree plot

and the parallel analyses indicated a two-factor solution, but extracting this solution resulted in a Heywood case (communality of one of the variables exceeding 1) in which only one item (Item 6: All people with serious mental illnesses can strive for recovery) saliently loaded on the second factor. Therefore, it was decided to retain the solution with one common factor. Table 3 lists the factor loadings of the seven items on the single common factor. Since the factor loadings of the first two items were smaller than 0.3, the EFA was repeated by running the EFA procedure in M*plus* and checking the standard errors for the loadings. All factor loadings were proven to be significantly different from zero, and all items were included in a single scale. Cronbach's alpha for the scale consisting of the seven RAQ items was 0.61, which is rather low. Although the low value of the homogeneity index counter-indicates the use of this scale as an individual diagnostic instrument, its rather heterogeneous composition does not preclude its use to study group differences and to assess changes over time.

Table 3 Factor loadings of the 7 items of the RAQ-Dutch after exploratory factor analysis

Items	*Factor loading*
1. People in recovery sometimes have setbacks	0.24
2. To recover requires faith	0.25
3. Stigma associated with mental illness can slow down the recovery process	**0.37**
4. Recovery can occur even if symptoms of mental illness are present.	**0.59**
5. Recovering from mental illness is possible no matter you think may cause it	**0.65**
6. All people with serious mental illnesses can strive for recovery	**0.57**
7. People differ in the way they recover from a mental illness	**0.54**

*The numbers in bold represent the salient factor loadings of the Dutch RAQ

2. *The Recovery Knowledge Inventory*

The original four-factor structure (proposed by the developers of the RKI) was tested in a CFA on the Dutch sample. The results show that this solution was not appropriate in this sample: χ^2=272.278 (df=164, p=0.000), TLI=0.75, RMSEA=0.056, and SRMR=0.075. The EFA indicated that the solution with three common factors should be retained. However, the three scales obtained by distributing the 20 RKI items according to their factor loadings, showed very low internal homogeneity. Moreover, the distribution of the 20 items over the three scales did not match prior expectations based on the item content and formulation, making a substantive interpretation of these results contrived. Therefore, it was decided to subject the RKI items to a PCA, and to retain the 14 items with a large loading on the first component in a single scale, which could be interpreted as 'Knowledge about recovery' (e.g. item 15 'Recovery is characterized by a person making gradual steps forward without major steps back'). The Cronbach's alpha of the 14 items was 0.80. Table 4 presents the factor loadings of the 20 items of the RKI-Dutch after explorative factor analysis.

The correlation between the RAQ and the RKI scale scores was 0.20 (p=0.004); this value is significant but low enough to show that both scales measure different constructs in the Dutch situation and have sufficient discriminatory validity.

Table 4 Factor loadings of the 20-items of the RKI-Dutch after explorative factor analysis

Items	*Factor loading*
1.The concept of recovery is equally relevant to all phases of treatment	-.095
2. People receiving psychiatric/substance abuse treatment are unlikely to be able to decide their own treatment and rehabilitation goals	**0.50**
3. All professionals should encourage clients to take risks in the pursuit of recovery	0.08
4. Symptom management in the first step towards recovery from mental illness/substance abuse	**0.49**
5. Not everyone is capable of actively participating in the recovery process.	0.27
6. People with mental illness should not be burdened with the responsibilities in every-day live	**0.39**
7. Recovery in serious mental illness is achieved by following a prescribed set of procedures	**0.64**
8. The pursuit of hobbies and leisure activities is important for recovery	0.18
9. It is the responsibility of professionals to protect their clients against possible failures and disappointments	**0.42**
10. Only people who are clinically stable should be involved in making decisions about their care	**0.60**
11. Recovery is not as relevant for those who are actively psychotic or abusing substances	**0.53**
12. Defining who one is, apart from his/her illness/condition, is an essential component of recovery	0.13
13. It is often harmful to have high expectations for clients	**0.43**
14. There is little that professionals can do to help a person recover if he/she is not ready to accept his/her illness/condition or need for treatment	**0.53**
15. Recovery is characterized by a person making gradual steps forward without major steps back	**0.56**
16. Symptom reduction is an essential component of recovery	**0.52**
17. Expectations and hope for recovery should be adjusted according the severity of person's illness/condition	**0.57**
18. The idea of recovery is most relevant for those people who has completed, are close to completing active treatment	**0.54**
19. The more the person complies with the treatment, the more likely he/she is to recover	**0.55**
20. Other people who have a serious mental illness or are recovering from substance abuse can be as instrumental to a person's recovery as mental health professionals	-0.26

*The numbers in bold represent the salient factor loadings on 14 items of the Dutch RKI.

3. The Recovery Promoting Relationship Scale

Since the developers of this questionnaire suggested a two-factor structure, a CFA with two factors was carried out with the factorial structure of the items as given by the original authors. In the Dutch sample of clients this model yielded an unacceptably bad fit with χ^2=663.544, (df=251, p=0.000), TLI=0.722, RMSEA=0.109, and SRMR=0.085. Although a scree plot suggested a one-factor solution, the two-factor solution from the EFA was preferred on the basis of the parallel analysis. Table 5 presents the rotated two-factor solution.

Table 5 Factor loadings of the 24 items of the RPRS-Dutch after explorative factor analysis.

Items	*Factor Loading F1*	*Factor Loading F2*
1. My provider helps me recognize my strengths	**0.53**	0.14
2. My provider tries to help me see the glass as 'half-full' instead of 'half empty'	-0.04	**0.60**
3. My provider helps me put things in perspective	**0.73**	0.22
4. My provider helps me feel I can have a meaningful life	**0.80**	0.04
5. I have a trusting relationship with my provider	**0.79**	-0.05
6. My provider helps me not to feel ashamed about my psychiatric condition	0.05	**0.72**
7. My provider helps me recognize my limitations	-0.17	**0.87**
8. My provider helps me finding meaning in living with a psychiatric condition	0.11	**0.68**
9. My provider helps me learn how to stand up for myself	**0.51**	0.32
10. My provider accepts my down times	**0.75**	-0.08
11. My provider encourages me to take chances and try things	**0.82**	-0.01
12. My provider reminds me of my achievements	**0.77**	0.08
13. My provider understands me	**0.59**	-0.14
14. My provider tries to help me feel good about myself	0.18	**0.59**
15. My provider helps me learn from challenging experiences	**0.54**	0.29
16. My provider really listens to what I have to say	**0.40**	0.06
17. My provider cares for me as a person	**0.77**	-0.07
18. My provider treats me with respect	**0.48**	-0.09
19. My provider helps me feel hopeful about the future	**0.79**	0.02
20. My provider helps me build self-confidence	**0.70**	0.08

21. My provider sees me as a person and not just as a diagnosis	**0.53**	-0.02
22. My provider helps me develop ways to live with my psychiatric condition	0.40	0.42
23. My provider has helped me understand the nature of my psychiatric condition	0.33	0.40
24. My provider believes in me	**0.63**	0.05

*The numbers in bold represent the salient factor loadings on factor 1 and factor 2 of the Dutch RPRS.

Inspection of Table 5 reveals that, while 17 items have a salient factor loading on the first factor, only five items saliently load on the second factor. Based on these results two scales (reflecting the two factors) were constructed by allotting an item to the scale for which its salient factor loading was highest. Two items were not allotted to any scale since they did not load on any factor. (E.g. item 23: My provider helps me develop ways to live with my psychiatric condition). The distribution of the items over the two factors does not completely agree with the original description given by the test developers. The Cronbach's alpha reliability coefficients for the two scales were 0.929 and 0.869, respectively. The correlation between the mean scale scores for both scales was 0.661. From a substantive point of view, the first scale (consisting of 17 items) represents the more recovery-related strategies (like hopefulness and empowerment), whereas the second scale of five items represents the provider's skills to enhance clients' self-acceptance. (e.g. item 14: My provider helps me to feel good about myself).

Discussion

The aim of the present study was to evaluate the psychometric properties of three instruments pertaining to recovery. To determine the psychometric properties of these instruments, a confirmatory factor analyses (CFA) was conducted to test whether the original factor structure of the three scales could also be found in the Dutch samples. Unfortunately, in none of the three questionnaires did the originally proposed factor structure yield an

acceptable fit. Therefore, exploratory factor analyses (EFA) was applied, subscales were formed, and the reliability of the new subscales was tested.

Results with the recovery attitude questionnaire (RAQ) indicate that its homogeneity and reliability is rather unsatisfactory. Although the low value of the homogeneity index counter-indicates the use of this scale as an individual diagnostic instrument, its rather heterogeneous composition does not preclude its use to study group differences and assess changes over time.

For the Dutch version of the recovery knowledge inventory (RKI), the principal component analysis (PCA) identified only one dimension underlying the structure of the scale. This dimension consists of 14 items from the original instrument which means that, in the Dutch version, six items were removed. Concerning the RKI, it must be mentioned that the composition and formulation of the original items was rather complex; the items were often ambiguously formulated, and were not easy to interpret. Nevertheless, a satisfactory alpha of 0.80 was found for the 14-item scale.

For the Dutch version of the RPRS, results show that the original factor structure for this instrument could not be replicated in the Dutch sample. A possible explanation for this is the homogeneity of our sample; all 142 of our respondents were clients compared with only 60% in the original sample. Moreover, compared to the original sample, our sample is also more homogeneous with regard to demographic and psychiatric characteristics and all were receiving long-term psychiatric care. Thus, the Dutch RPRS is a reliable 22-item scale measuring general components of recovery-promoting professional competence of mental healthcare providers, with the two general components that were found. The questionnaire provides scores on the recovery-promoting strategy, self-acceptance and the degree of a given practitioner's core interpersonal skills. This indicates the professional capability to empower his/her client and his/her ability to provide hope, from the point of view of the client. The

reliability coefficients for both factors in the Dutch sample were good, which is consistent with the high alphas found in the original scale.

There are four possible explanations for the differences in factor solutions between the original questionnaires and the Dutch versions. First, differences may arise due to translation of the items. Problems were encountered in the translation process, e.g. some items were simply difficult to interpret. Similar problems were reported in a psychometric evaluation of the Herth Hope Index-Dutch version (18). Second, differences may arise due to cultural aspects. For example, the USA has a more multicultural society (our sample had only two persons with a non-Dutch background). Third, our study population was relatively homogeneous whereas the results of the original studies were influenced by the heterogeneity of their samples. In the present study, it was decided to distinguish between a specific (homogeneous) sample of mental health consumers and a professional sample. Finally, differences may arise due to the way mental healthcare is organised in the Netherlands. For example, Dutch society is generally not familiar with consumer-run projects, specific recovery principles, managed care, and working together with people who have experienced psychiatric problems themselves.

Conclusion

The present study contributes to the development of three instruments related to recovery to be used in the Netherlands. The psychometric properties of the translated instruments were established. These instruments are suitable for research on recovery-oriented competencies and the recovery-promoting relationship for professionals working with people with serious mental illness.

Moreover, the three instruments are appropriate tools to examine different aspects of recovery, including knowledge on recovery, attitudes towards recovery among professionals,

and to measure generic components of mental health providers' recovery-promoting professional competence.

References

1 Silverstein SM, Bellack AS. A scientific agenda for the concept of recovery as it applies to schizophrenia. *Clinical Psychology Review* 2008; 28: 1108-24.

2 Boevink W, Dröes J. Herstelwerk van mensen met een psychische beperking en wat kunnen hulpverleners doen om hen te ondersteunen?(Recovery of serious mental illness and the contribution of mental health care providers to facilitate and support recovery.) *Psychopraxis* 2005; 7: 11-6.

3 Hugo M. Mental health professionals' attitudes towards people who have experienced a mental health disorder. *Journal of Psychiatric and Mental Health Nursing* 2001; 8: 419-25.

4 Crowe TP, Deane FP, Oades LG, Caputi P, Morland KG. Effectiveness of a Collaborative Recovery Training Program in Australia in Promoting Positive Views About Recovery. *Psychiatric Services* 2006; 57: 1497-500.

5 Young HM, McCormick WM, Vitaliano PP. Attitudes Toward Community-Based Services Among Japanese American Families. *The Gerontologist* 2002; 42: 814-25.

6 Davidson L, Borg M, Marin I, Topor A, Mezzina R, Sells D. Processes of Recovery in Serious Mental Illness: Findings from a Multinational Study. *American Journal of Psychiatric Rehabilitation* 2005; 8: 177 - 201.

7 Onken SJ, Dumont JM, Rigdeway P, Dornan D, Ralph R. *Mental Health Recovery: What helps and what hinders?* Report to the National Technical Assistance Center for State Mental Health Planning 2002. National Association of State Mental Health Program Directors, Alexandria.

8 Campbell-Orde T, Chamerlin J, Carpenter MSW, Leff HS. *Measuring the Promiss: A Compendium of Recovery Measures.* Volume II, 2005.

9 Borkin JB, Steffen JR, Ensfiels JJ, Krzton K, Wishnick H, Wilder K, et al. Recovery Attitudes Questionnaire: Development and Evaluation. *Psychiatric Rehabilitation Journal* 2000; 24: 95-102.

10 Bedregal LE, O'Connell M, Davidson L. The Recovery Knowledge Inventory: Assessment of Mental Health Staff Knowledge and Attitudes about Recovery. *Psychiatric Rehabilitation Journal* 2006; 30: 96-103.

11 Russinova Z, Rogers SE, Ellison ML. *Recovery Promoting Relationship Scale.* 2006; Centre of Rehabilitation Sciences, Boston University, Boston, USA.

12 Cull A, Sprangers M, Bjordal K, Aaronson N, West K, Bottomley A. *EORTC Quality of Life Translation Procedure.* EORTC Quality of Life 2002; Unit, Brussels, Belgium.

13 South London and Maudsley NHS Foundation Trust and South West London and St George's Mental Health NHS Trust; *Recovery is for All. Hope agency and opportunity in Psychiatry.* A Position Statement by Consultant Psychiatrists 2010; London: SLAM/SWLSTG.

14 Green CA, Polen MR, Janoff SL, Castleton DK, Wisdom JP, Vuckovic N, Perrin NA, Paulson R, Oken S. Understanding how clinician-patient relationships and relational continuity of care affect recovery from serious mental illness: STARS study results. *Psychiatric rehabilitation Journal 2008; 32(1): 9-22.*

15 Muthén LK, Muthén BO. *Mplus User's Guide*. Fifth ed. 2007; Los Angeles, CA, USA: Muthén & Muthén.

16 Levesque, R. *SPSS Programming and Data Management: A Guide for SPSS and SAS Users*, Edition 17, 2010, SPSS Inc., Chicago Illinois: Open University Press.

17 Fabrigar LR, Wegener DT, MacCallum RC, Strahan EJ. Evaluating the Use of Exploratory Factor Analysis in Psychological Research. *Psychological Methods*. 1999; 4: 272-99.

18 Van Gestel-Timmermans H, Van den Bogaard J, Brouwers E, Van Nieuwenhuizen C. Hope as a determinant of mental health recovery: a psychometric evaluation of the Herth Hope Index-Dutch version. *Scandinavian Journal of Caring Sciences* 2010*;* 24: 67-74.

Chapter 3

Psychometric evaluation of the Dutch version of the Mental Health Recovery Measure (MHRM)

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Abstract

Background

During the past decade, the mental health consumer movement has drawn the attention of mental health providers, researchers and policymakers to the concept of recovery. Traditionally, recovery primarily refers to the remission of symptoms. Nowadays, recovery is also regarded in a sense that all individuals, even those with severe psychiatric disabilities, can improve. Accordingly, recovery for people with severe mental illness refers to hope and optimism, empowerment, regained control and increased self-esteem, illness self-management and engagement in meaningful daily activities (Corrigan 1999; Resnick, Rosenheck et al. 2004). Little empirical research, however, has been done and instruments to measure recovery are scarce.

Aims

In the current study, the psychometric properties of the Dutch version of the Mental Health Recovery Measure (MHRM) are explored. Convergent and divergent validity of the MHRM was assessed using standardised measures of hope (Hope Herth Index, HHI), recovery-promoting professional competence (Recovery Promoting Relationships Scale, RPRS) and general physical health and well-being (RAND Measure of Health-Related Quality of Life, RAND-36).

Methods

A factor analysis was conducted and Cronbach's alphas of the MHRM-scales were assessed. The construct validity was assessed by computing the intercorrelations of the MHRM, HHI, RPRS and RAND-36.

Results

Data were available of 212 patients: 70 patients completed the MHRM, HHI and RAND 36 and 142 patients filled out the MHRM and RPRS. Exploratory factor analysis resulted in an

interpretable three-factor solution. Cronbach‘s alpha’s ranged from .86 to .94. The convergent validity of the instrument was satisfactory; the divergent validity was less clear.

Conclusions

This study offers evidence to suggest that the Dutch version of the MHRM is a reliable measure (in terms of internal consistency) with a generally acceptable convergent and divergent validity. Further research is needed to clarify the extent in which the MHRM is sensitive enough to capture the individual recovery process of patients.

Keywords: recovery, instrument development, severe mental illness, MHRM

Introduction

During the past decade, the mental health consumer movement has drawn the attention of mental health providers, researchers and policymakers to the concept of recovery. Traditionally, recovery primarily referred to the remission of symptoms (Fava, Ruini & Belaise, 2007; Lysaker & Buck, 2008). Nowadays, recovery is also regarded in a sense that all individuals, even those with severe psychiatric disabilities, can improve. This means that recovery is more than the remission of symptoms and can be achieved despite the existence of these symptoms (Anthony 1993a; Anthony 1993b; Roberts and Wolfson 2004). Accordingly, recovery for people with severe mental illness refers to hope and optimism, empowerment, regained control and increased self-esteem, illness self-management and engagement in meaningful daily activities (Corrigan 1999; Resnick, Rosenheck et al. 2004). Recovery-orientated services work collaboratively with service users to agree and facilitate their individualized goals.

The consumer movement has urged that mental health services should be more recovery-orientated and this notion is gradually being incorporated internationally into mental health policy (Andresen, Oades et al. 2003). Moreover, the demand to demonstrate effectiveness of mental health services is increasing (Srebnik, Uehara et al. 2002). One way to demonstrate effectiveness is through assessment and monitoring of change and by reviewing outcome. Though mental health care is embracing recovery as an important and essential concept in the effective treatment of patients, little empirical research has been done and instruments to measure recovery are scarce (Corrigan and 1999) Schön, Denhov & Topor, 2009; Drapalski et al., 2012; Van Gestel-Timmermans, Brouwers, Van Assen & Van Nieuwenhuizen, 2012b). There are at least two reasons why measuring the recovery concept is warranted. First, monitoring of the individual recovery process can provide the client and

professional with information that can be used during treatment and rehabilitation interventions. Second, results from recovery instruments can stimulate policymakers to develop and improve recovery-based care and mental health policy (Marshall et al., 2007; Burgess, Prikis, Coombs & Rosen, 2011). In order to do justice to the aspects of monitoring and recovery-based care, reliable instruments are needed. To this end, the psychometric properties of the Mental Health Recovery Measure (MHRM; Young & Bullock, 2003) are explored in the current study.

Methods

Participants

In this study, patients receiving long-term ambulatory or residential psychiatric care participated. Of these patients, seventy patients took part in a psychometric evaluation study of the MHRM and 142 participated in a study pertaining to the evaluation of recovery-oriented care in which the MHRM was used. Prior to participation, all patients were verbally informed by their personal mental health professional and/or researcher, received written information about the study they were enrolled in and provided a written informed consent. Prior to the start, the regional Medical Ethics Approval Committee for Mental Health Care Institutions (METIGG) was approached. According to the Medical Research Involving Human Subjects Act (WMO), ethical approval was not required.

Instruments

The MHRM was chosen after (a) an extensive search of available instruments to measure recovery and (b) asking patients about their preference. Our search had led to two potential appropriate instruments, that is, the MHRM and the Recovery Assessment Scale (RAS; Corrigan & Phelan, 2004). Forty-five patients were asked to judge - on face value - both the MHRM and the RAS. Participants were recruited through experts by experience in the South

of the Netherlands. In an interview with the researcher, each patient expressed his or her thoughts about the two instruments their comments were registered. Of these patients, 63% reported that they preferred the MHRM over the RAS and we therefore decided to further explore the psychometric properties of the MHRM.

Mental Health Recovery Measure (MHRM)

The MHRM is a self-report instrument designed to assess the recovery process of persons with severe mental illness. The level of each respondent's recovery is assessed without relying on the measurement of symptoms or symptom management. The MHRM was developed for two reasons: (a) to provide an individual self-report change measurement for the level of recovery and (b) to be used as a programme evaluation tool. The items and domains of the MHRM were developed from a qualitatively derived grounded-theory model of recovery and based upon the recovery experience of individuals with psychiatric disability (Young and Bullock 2003) Subsequent development of the MHRM was based on the data of 279 mental health consumers in a variety of inpatient, forensic and community mental health settings. Reliability analysis and Rasch modelling resulted in a series of revisions to the original instrument, which eventually resulted in its current 30-item version. The original instrument comprises seven subscales each of four items: Overcoming Stuckness (α = .60), Self-Empowerment (α = .82), Learning and Self-Redefinition (α = .79), Basic Functioning (α = .62), Overall Well-Being (α = .86), New Potentials (α = .62) and Advocacy / Enrichment (α = .66); there are two separate items that measure spirituality (α = .89). All items are rated using a 5-point Likert scale that ranges from 'strongly disagree' to 'strongly agree' (Young & Bullock, 2005).

Hope Herth Index

The Herth Hope Index (HHI) is a self-report questionnaire which measures hope. The HHI has 12 Likert-scale items, with scores ranging from 1 ('strongly disagree') through 4 ('strongly agree'). The Dutch-version of the HHI comprises two factors each of six items, i.e.: 'View on life & future' and 'Self-confidence & inner strength' (Van Gestel-Timmermans, Van den Bogaard, Brouwers, Herth & Van Nieuwenhuizen, 2010). *Rand-36*

The RAND-36 comprises 36 items that assess eight health concepts: physical functioning, role limitations caused by physical health problems, role limitations caused by emotional problems, social functioning, emotional well-being, energy/fatigue, pain, and general health perceptions. Six subscales have items on 3- through 6-point Likert scales and the other two scales have items that can be answered with 'yes' or 'no'. It also includes a single item that provides an indication of perceived change in health (van der Zee and Sanderman 1993).

Recovery Promoting Relationship Scale (RPRS)

The RPRS (Russinova, Rogers & Ellison, 2006) is a self-report questionnaire for patients and measures the generic components of mental health providers' recovery-promoting professional competence as seen by patients. In this study, the Dutch version of the RPRS was used (Wilrycx, Croon, Van den Broek & Van Nieuwenhuizen, 2012). This version consists of 22 items and has two scales; items are scored on a 5-point Likert scale (do not agree/agree). The first scale (consisting of 17 items) is called 'hopefulness & empowerment' and represents the more recovery-related strategies, whereas the second scale 'self-acceptance'(comprising five items) represents the provider's skills to enhance clients' self-acceptance.

Procedure

Seventy patients filled out the MHRM, HHI, and RAND-36 and 142 patients filled out the MHRM and RPRS. Data were collected in two separate studies, one specifically aiming at

looking at the psychometric properties of the MHRM (70 patients; data collected until beginning of 2008) and one as part of a larger study in which a recovery-oriented training was evaluated (142 patients; data collected until mid-2008). Since no Dutch version existed of the MHRM and RPRS, they were prepared in Dutch by using the backward forward translation procedure (Wilrycx et al., 2011; Cull et al., 2002). First, five English/Dutch bilinguals made translations into Dutch. Any obvious differences between the English and Dutch versions were then discussed with a native English speaker. This process produced a consensus version of Dutch items which was subsequently translated back into English by two other native speakers. A fourth English native speaker discussed differences between this English version and the original. Final versions were thus constructed maintaining essentially the same format and meaning as the original instruments.

Statistical analysis

Factor analysis

Because four of the seven subscales of the MHRM of Young and Bullock (2003) had an alpha lower than .70, an exploratory factor analysis (EFA) using SPSS 17 was conducted on the Dutch version. The number of factors to retain in a principal axes factor solution was based on visual inspection of Cattell's scree plot and on the results of a parallel analysis, as recommended by Fabrigar and colleagues (Fabrigar, Wegener, MacCallum & Strahan, 1999). All principal axes solutions were obliquely rotated by means of the OBLIMIN rotation procedure. Factor loadings larger than 0.30 in absolute value were considered salient.

Reliability analysis

On the basis of the factor analysis, subscales were formed for the MHRM and the reliability (in terms of Cronbach's alpha) was assessed. A value of 0.70 for alpha was considered the

minimum for each scale. In addition, of all other scales used in the current study, the reliability (in terms of Cronbach's alpha) was assessed.

Construct validity

The construct validity of the MHRM was assessed by computing the correlations between the scales of the MHRM, HHI, RAND-36 and RPRS. Convergent validity was assumed if correlations were medium to high between the MHRM-scales and the two scales of the HHI and the RAND-36 scales 'social functioning', 'emotional well-being' and 'energy/fatigue'. Divergent validity was assumed if correlations were low (i.e. <.30) between the MHRM-scales and the two scales of RPRS and the RAND-36 scales 'physical functioning', 'role limitations' (physical health problems and emotional problems), 'pain' and 'general health perceptions'. Note: According to Cohen (1998), a medium correlation ranges from 0.30 to 0.49 and a high correlation is $r > 0.50$.

Results

Sample characteristics

The mean age of the patients was 47.2 (sd = 13.1) and 64% of the group were female patients. General demographic and psychiatric characteristics are given in Table 1.Table 1:

Demographic and psychiatric characteristics of the participants

	Total group	
	Mean	Sd
Age (n=212)	47.2	13.1
	n	%
Gender (n=204)		
Women	131	64
Men	73	36
DSM IV-R (Axis I and II)*		
Schizophrenia & other psychotic disorders	82	33
Mood and anxiety disorders	51	20
Substance related disorder	12	5
Other (including ADHD and ASD)	34	14
Personality disorders	71	28

Total number of classifications on Axis I and Axis II adds up to n=250.

Exploratory factor analysis

Exploratory factor analysis (EFA) on the 30 items of the MHRM resulted in seven components with an eigenvalue > 1.0. Together they explained 62% of the variance. Visual inspection of Cattell's scree plot however showed that a three-factor solution was a far more better option than a seven-factor solution. Moreover, some components comprised only a few items and one component consisted of just one item. Therefore, the analysis was repeated with a forced three-factor solution which explained 46% of the variance. After OBLIMIN rotation a good interpretable factor structure emerged (Table 2). All items but one loaded >.30 on at least one factor with the majority of the items (77%) loading >.50.

Table 2: ***Factor loadings of the 30 items of the MHRM after Oblimin rotation (N=212).***

Content items	*Factor loadings*		
	f1	f2	f3
I believe in myself.	.68		
I have control over my mental health problems.	.72		
I am in control of my life.	.79		
I socialize and make friends.	.52		
Even though I may still have problems, I value myself as a person.	.74		
I understand myself and have a good sense of who I am.	.66		
I eat nutritious meals everyday.	.41		
I feel good about myself.	.83		
My life is pretty normal.	.76		
I feel at peace with myself.	.80		
I maintain a positive attitude for weeks at a time.	.69		
I cope effectively with stigma associated with having a mental health problem.	.45		
I have enough money to spend on extra things or activities.	.44		
I work hard towards my mental health recovery.		-.60	
Even though there are hard days, things are improving for me.		-.59	
I ask for help when I am not feeling well.		-.31	
I take risks to move forward with my recovery.		-.44	
Everyday is a new opportunity for learning.		-.59	
I still grow and change in positive ways despite my mental health problems.		-.69	
I go out and participate in enjoyable activities every week.		-.67	
I make the effort to get to know other people.		-.56	
I am comfortable with my use of prescribed medications.		-.28	
The way I think about things helps me to achieve my goals.		-.67	
My quality of life will get better in the future.		-.68	
Every day that I get up, I do something productive.		-.47	
I am making progress toward my goals.		-.79	
I advocate for the rights of myself and others with mental health problems.		-.59	
I engage in work or other activities that enrich myself and the world around me.		-.67	
When I am feeling low, my religious faith or spirituality helps me to feel better.			.94
My religious faith or spirituality supports my recovery.			.94

Reliability and scale labelling (MHRM)

The Cronbach's alpha coefficients for the three scales after EFA were 0.90, 0.86 and 0.94. Items of the first scale pertained to understanding oneself and feeling in control and the scale was therefore labeled 'self-empowerment'. The second scale encompassed items which deal with learning new things, personal growth and the advocacy of rights of people with mental illness and was therefore labeled 'learning & new potentials'. The last scale consisted of two items specifically focused on religion/spirituality and was therefore labeled 'spirituality'.
In the current study, the Cronbach's alpha coefficients for the two scales of the HHI were 0.85 and 0.75. The alpha coefficients of the RAND-36 current study ranged from .63 to .93; six of the eight scales had an alpha of .76 and higher and the alpha's for the two scales of the RPRS were 0.93 and 0.87.

Convergent & divergent validity

Table 3 shows the correlations between MHRM-scales and the scales of the HHI, RAND-36 and RPRS. According to expectations, a significant medium to high correlation was found between the scales of the MHRM and HHI. A non-significant and low correlation, however, was found between the MHRM-scale 'spirituality' and the HHI-scale 'view on life & future'. Significant medium to high correlations were also found between two of the three MHRM-scales and the RAND-36 scales 'social functioning', 'emotional well-being' and 'energy/fatigue'. As can be seen, the MHRM-scale 'learning & new potentials' had an unexpected low and non-significant correlation with the social functioning scale of the RAND-36 and the MHRM-scale 'spirituality' correlated low and non-significant with all the aforementioned RAND-36 scales.

As for the divergent validity, low and non-significant correlations were found between all the scales of the MHRM and RPRS. The correlations between the MHRM-scales and RAND-36 scales 'physical functioning', 'role limitations' (physical health problems and

emotional problems), ‘pain’ and ‘general health perceptions’ were less clear. As expected, low correlations with ‘learning & new potentials’ and ‘spirituality’ were found - except for a medium correlation between ‘learning & new potentials’ and ‘general health perceptions’ (r=.38). Medium to high correlations, however, were found with the MHRM-scale ‘self-empowerment’ with correlations ranging between .30 and .59.

Table 3: *Correlations between scales of the MHRM, HHI, RAND-36 and RPRS.*

	MHRM		
	self-empowerment	learning & & new potentials	spirituality
MHRM			
self-empowerment	-		
learning & new potentials	.68**	-	
Spirituality	.29**	.21*	-
HHI			
View on life & future	.44**	.51**	.16
Self-confidence & inner strength	.67**	.55**	.47**
RAND-36			
physical functioning	.38**	.13	.17
role limitations caused by physical health problems	.30**	.18	.07
role limitations caused by emotional problems	.29**	.02	.08
social functioning	.43**	.22*	.15
emotional well-being	.76**	.48**	.20
energy/fatigue	.67**	.50**	.06
pain	.49**	.26*	.02
general health perceptions	.59**	.38**	.11
RPRS			
hopefulness & empowerment	.14	.16	-.01
self-acceptance	.09	.22*	. 24**

Note: * $p < .05$; ** $p < .01$ level (one-tailed)

Conclusions

This study offers evidence to suggest that the Dutch version of the MHRM is a reliable measure (in terms of internal consistency) with a generally acceptable convergent and divergent validity. When considering the original MHRM as a suitable instrument to measure the individual recovery process, we noticed that not much information in scientific journals was available on the psychometric properties of the scale. Moreover, the composition of the subscales was not derived from a factor analysis carried out on a large pool of items, but was primarily based on substantive grounds (Young, Ensing & Bullock, 2000; Cavelti, Kvrgic, Beck, Kossowsky & Vauth, 2012). Recently Drapalski et al. (2012) have mentioned this as two major criticism points on the MHRM. Instead of developing a new scale as Drapalski and colleagues have done, we have chosen to conduct an exploratory factor analysis on the MHRM on a substantial dataset. The exploratory factor analysis resulted in an interpretable three-factor solution and the internal consistency of these three scales was good to excellent.

As for the validity of the modified MHRM there are some interesting results which need further exploration. The MHRM-scale ‘spirituality’, for instance, has a low and non-significant correlation with the vast majority of the other scales used in this study and also correlates low (though significantly) with the other two scales of the MHRM. These two items pertaining to religion/spirituality are probably too constricting in what people understand or feel as 'belief'. Since respondents in the Netherlands in general experience religion in a different way than for instance the USA, this might explain why this factor stands on its own (e.g. Van Nieuwenhuizen, Schene, Koeter & Huxley, 2001).

Results also show that the MHRM-scale ‘self-empowerment’ correlates medium to high with nearly all scales of the RAND whereas no relationship was expected with the more health-related aspects of the RAND (e.g. physical functioning and general health perceptions).

It seems that feeling in control and good about one selves - which are key elements of the scale ‘self-empowerment’ - has a positive effect on other areas of life (Corrigan & Penn, 1999) while this is not the case for ‘learning & new potentials’. The correlations of the MHRM with the RAND and RPRS suggest that the MHRM is measuring something different then, for example, role limitations and is not per se related to the recovery-promoting skills of professionals. This underlines the importance of differentiating between service-based recovery definitions and user-based recovery definitions (Schrank & Slade, 2007).

To conclude, the factors of the MHRM correspond with the consumer literature on recovery. The Dutch version of the MHRM is potentially a suitable instrument for evaluation studies and can play a role in stimulating policymakers to improve recovery-based care and mental health policy. Further research is needed though on the test-rest reliability and on the extent in which the MHRM is sensitive enough to capture the individual recovery process of patients so it can be more then purely an endpoint outcome measure (*cf*. Resnick, Fontana, Lehman & Rosenheck, 2005).

References

Allott, P., Loganathan, L. & Fulford, K.W.M. (2002) Discovering hope for recovery. Canadian Journal of Community Mental Health, 21, 13-33.

Andresen, R., Caputi, P. & Oades, L. (2006) Stages of recovery instrument: Development of a measure of recovery from serious mental illness. The Australian and New Zealand Journal of Psychiatry, 40, 972-980.

Anthony, W.A. (1993a) The decade of recovery. Psychosocial Rehabilitation Journal, 16, 1.

Anthony, W.A. (1993b) Recovery from mental illness; the guiding vision of the mental health service system in 1990s. Psychosocial Rehabilitation Journal, 16, 11-23.

Burgess, P., Prikis, J., Coombs, T. & Rosen, A. (2011) Assessing the value of existing recovery measures for routine use in Australian mental health services. The Australian and New Zealand Journal of Psychiatry, 45(4), 267-280.

Cavelti, M., Kvrgic, S., Beck, E.M., Kossowsky, J. & Vauth, R. (2012) Assessing recovery from schizophrenia as an individual process. A review of self-report instruments. European Psychiatry, 27, 19-32.

Cohen, J.W. (1998) Statistical Power Analysis for the Behavioral Sciences. 2nd Edition. Hillsdale, NJ: Lawrence Erlbaum Associates.

Corrigan, P.W., Giffort, D., Rashid, F., Leary, M. & Okeke, I. (1999) Recovery as a psychological construct. Community Mental Health Journal, 35, 231-239.

Corrigan, P.W. & Penn, D.L. (1999) Lessons from social psychology on discrediting psychiatric stigma. The American Psychologist, 54, 765-776.

Corrigan, P.W. & Phelan, S.M. (2004) Social support and recovery in people with serious mental illness. Community Mental Health Journal, 40, 513-524.

Cull, A., Sprangers, M., Bjordal, K., Aaronson, N., West, K. & Bottomley, A. (2002) EORTC Quality of Life group. Translation Procedure. Available from: http://groups.eortc.be/qol/downloads/200202translation_manual.pdf

Drapalski, A.L., Medoff, D., Unick, G.J., Velligan, D.I., Dixon, L.B. & Bellack, A.S. (2012) Assessing recovery of people with serious mental illness: development of a new scale. Psychiatric Services, 63(1), 48-53.

Fabrigar, L.R., Wegener, D.T., MacCallum, R.C. & Strahan, E.J. (1999) Evaluating the use of exploratory factor analysis in psychological research. Psychological Methods, 4, 272-299.

Fava, G.A., Ruini, C. & Belaise, C. (2007) The concept of recovery in major depression. Psychosocial Medicine, 37, 307-317.

Jacobson, N. & Greenley, D. (2001) What is recovery? A conceptual model and explanation. Psychiatric Services, 52, 482-485.

Leamy, M., Bird, V., Le Boutillier, C., Williams, J., & Slade, M. (2011). Conceptual framework for personal recovery in mental health: systematic review and narrative synthesis. British Journal of Psychiatry, 199, 445-452.

Lloyd, C., King, R. & Moore, L. (2010) Subjective and Objective Indicators of Recovery in Severe Mental Illness: a Cross-Sectional Study. International Journal of Social Psychiatry, 56, 220-229.

Lysaker, P.H. & Buck, K.D. (2008) Is recovery from schizophrenia possible? An overview of concepts, evidence, and clinical implications. Primary Psychiatry, 15, 60-65.

Marshall, S.L., Crowe, T.P., Oades, L.G., Deane, F.F. & Kavanagh, D.J. (2007) A review of consumer involvement in evaluations of case management: Consistency with a recover paradigm. Psychiatric Services, 58, 396-401.

Mead, S. & Copeland, M.E. (2000) What recovery means to us: consumers' perspectives. Community Mental Health Journal, 3, 315-328.

Ramon, S., Healy, B. & Renouf, N. (2007) Recovery from mental illness as an emergent concept and practice in Australia and the UK. International Journal of Social Psychiatry, 53, 108-122.

Resnick, S.G., Fontana, A., Lehman, A.F. & Rosenheck, R.A. (2005) An empirical conceptualization of the recovery orientation. Schizophrenia Research, 75, 119-128.

Roberts, G. & Wolfson, P. (2004) The rediscovery of recovery: Open to all. Advances in Psychiatric Treatment, 10, 37-49.

Russinova, Z., Rogers, E.S. & Ellison, M.L. (2006) Recovery Promoting Relationships Scale Manual. Boston: Center for Psychiatric Rehabilitation.

Schön, U., Denhov, A. & Topor, A. (2009) Social Relationships as a Decisive Factor in Recovering From Severe Mental Illness. International Journal of Social Psychiatry, 55, 336-347.

Schrank, B. & Slade, M. (2007) Recovery in psychiatry. Psychiatric Bulletin of the Royal College of Psychiatrists, 31, 321-325.

Srebnik, D.S., Uehara, E., Smukler, M., Russo, J.E., Comtois, K.A. & Snowden, M. (2002) Psychometric properties and utility of the Problem Severity Summary for adults with serious mental illness. Psychiatric Services, 53, 1010-1017.

Van der Zee, K.I., Sanderman, R., Heyink, J.W. & De Haes, H. (1996) Psychometric qualities of the RAND 36-item health survey 1.0. A multidimensional measure of general health status. International Journal of Behavioral Medicine, 3, 104-122.

Van Gestel-Timmermans, J., Van den Bogaard, J., Brouwers, E.P.M., Herth, K. & Van Nieuwenhuizen, Ch. (2010) Hope as a determinant of mental health recovery: A psychometric

evaluation of the Herth Hope Index-Dutch version. Scandinavian Journal of Caring Sciences, 24, 67-74.

Van Gestel-Timmermans, J., Brouwers, E., Van Assen, M., Bongers, I.L., & Van Nieuwenhuizen, Ch. (2012a) Profiles of individually defined recovery of people with major psychiatric problems. International Journal of Social Psychiatry, 58, 521-531.

Van Gestel-Timmermans, J., Brouwers, E., Van Assen, M. & Van Nieuwenhuizen, Ch. (2012b) Effects of a peer-run course on the recovery of people with major psychiatric problems: a randomised controlled trial. Psychiatric Services, 63, 54-60.

Van Nieuwenhuizen, Ch., Schene, A.H., Koeter, M.W.J. & Huxley, P.J. (2001) The Lancashire Quality of Life Profile: Modification and psychometric evaluation. Social Psychiatry and Psychiatric Epidemiology, 36, 36-44.

Weeks, G., Slade, M. & Hayward, M. (2011) A UK validation of the Stages of Recovery Instrument. International Journal of Social Psychiatry, 57, 446-454.

Williams, J., Leamy, M., Bird, V., Harding, C., Larsen, J., Le Boutillier, C., Oades, L. & Slade, M. (2012). Measures of the recovery orientation of mental health services: systematic review. Social Psychiatry and Psychiatric Epidemiology, 47, 1827-1835.

Wilrycx, G.K.M.L., Croon, M.A., Van den Broek, A. & Van Nieuwenhuizen, Ch. (2011) Psychometric properties of three instruments to measure recovery. Scandinavian Journal of Caring Sciences. *26, 607–614.*

Young, S.L. & Bullock, W.A. (2003) The Mental Health Recovery Measure. Available from the University of Toledo, Department of Psychology (#918), Toledo, OH 43606-3390.

Young, S.L. & Bullock, W.A. (2005) The Mental Health Recovery Measure. In Campbell-Orde, T., Garrett, E. & Leff, S. (Eds.), *Measuring the promise of recovery: A compendium of recovery and recovery related instruments, Part II (pp. 36-41)*. Cambridge, MA: The Evaluation Center @ HSRI.

Young, S.L. & Ensing, D.S. (1999) Exploring recovery from the perspective of people with psychiatric disabilities. Psychiatric Rehabilitation Journal, 22, 219-231.

Young, S.L., Ensing, D. & Bullock, W.A. (2000) Mental Health Recovery Measure: Background, Scoring, and Psychometrics. In Ralph, R.O., Kidder, K. & Phillips, D. (Eds.), Can We Measure Recovery? A Compendium of Recovery and Recovery-Related Instruments (pp. 99-108). Cambridge, MA: The Evaluation Center @ Human Services Research Institute.

Chapter 4

Mental Health Recovery : Evaluation of a Recovery-Oriented Training Program

Wilrycx, G.K.M.L., Croon, M.A., Van den Broek, A., & Van Nieuwenhuizen, Ch. (2012) Mental health recovery: Evaluation of a recovery-oriented training program. *The Scientific World Journal*. *Special issue "Mental Health, Recovery, and the Community*", 1-7: doi: 10.1100/2012/820846

Abstract

Aim: This study investigates the effectiveness of a recovery-oriented training program on knowledge and attitudes of mental health care professionals towards recovery of people with serious mental illness.

Methods: Using data from a longitudinal study of recovery, changes in knowledge and attitudes of 210 mental health care professionals towards recovery were explored using the Recovery Attitude Questionnaire and the Recovery Knowledge Inventory.

The study uses a two group multiple intervention interrupted time-series design which is a variant of the stepped-wedge trial design. A total of six measurements occasions took place.

Results: This study shows that professionals' knowledge and attitudes towards recovery from mental illness can improve with training. After two intensive recovery-oriented training sessions, mental health care professionals have a more positive attitude towards recovery in clinical practice.

Conclusion: A recovery-oriented training program can change knowledge and attitudes of mental health care professionals towards recovery of seriously mentally ill.

Keywords: mental health care, recovery, severe mental illness, professional competence

1. **Introduction**

With growing interest in the concept of recovery of patients with severe mental illness, the role of the mental healthcare system is receiving increasing attention. The main issue is how treatment can facilitate the recovery process of patients with long-term psychiatric problems, and how the relationship with the mental health consumer might impede or facilitate recovery [1- 5]. Professionals can contribute to the recovery process [6- 9] and are able to facilitate a recovery-promoting environment for people with serious mental disorders (e.g. [10, 11]). However, for successful implementation of a recovery approach, mental healthcare professionals need to change or adapt their attitudes towards this new vision of recovery.

To change the traditional mental health care system to a more recovery-oriented one, many organisations train their professionals in the recovery concept. However, lack of knowledge and skills, organisational barriers (such as poor leadership), a change-averse culture, insufficient collegial support and bureaucratic constraints may hinder the dissemination and implementation of innovative approaches [12]. A supportive factor for effective implementation is the use of understandable language, which promotes a more positive attitude towards the topic and increases perceived behavioural control over the implementation [13 - 15]. Hence, to implement a more recovery-oriented care system, it is important to focus on the professional's belief in and understanding of recovery, and the ability to promote patient recovery [5, 6]. Moreover, professionals who have to assimilate a new recovery vision into their routine practice need to master a set of core competencies [5]. These competencies include: effective communication, fostering hope, appropriate self-disclosure, and a mutual respectful partnership in treatment. Working in partnership, identifying individual needs and strengths [16], and responsible risk-taking are also capabilities that strengthen a new way of working with people with severe mental illnesses

[17]. Unfortunately, much of the evidence available today is of a narrative nature, whereas to validate a new recovery approach more empirical-based data are required [18].

Therefore, this study investigates the effectiveness of a recovery-oriented training program implemented in the Netherlands. To explore changes in knowledge and attitudes of mental health care professionals, a variant of the stepped-wedge trial design [19, 20] was used.

2. Methods

2.1. Procedure

All mental healthcare workers of the department 'Impact' (the department for long-term mentally ill people in Breda/Etten-Leur) were asked to participate in an educational program about recovery. All participants were verbally informed by their managers, they received an information flyer about the program, and gave informed consent before the study started. The educational program was mandatory for all professionals. Parallel with the educational program an evaluation study was conducted to assess the effects of the educational program. The management team explicitly encouraged participation in the evaluation study.

Prior to the start, the regional Medical Ethics Approval Committee for Mental Health Care Institutions (METIGG) was approached. According to the Medical Research Involving Human Subjects Act (WMO), ethical approval was not required.

2.2. The training program

In order to implement the new recovery vision, and to achieve a culture change within the mental health organisation located in Breda, a recovery-oriented care project was developed by three major mental health care organisations: i.e. two rehabilitation organisations (Rehabilitation '92 [21] and STORM rehabilitation [22]) and one peer-support organisation (HEE [23]), The 'Recovery and recovery-oriented care' project was developed especially for

the mental healthcare network ‘Impact’ for long-term mentally ill people. The main goal of the project was to create and promote a new culture towards recovery from serious mental illness: how can treatment promote the recovery process of patients with long-term psychiatric problems and does the relationship with the mental health professional facilitate recovery [1- 5]?

The educational program was given in two separate intensive training sessions, one in 2008 and a second one in 2009. The training program was developed for all professionals who are in close contact with the mental healthcare patients, like there are psychologists, psychiatrists, secretaries, managers and nurses. The training program consisted out of two modules given in a two-day session every six months, the participants were randomly selected and twenty groups were formed with 10 - 16 professionals per group. The first module ‘Basics of recovery and recovery-oriented care’ (intervention A) was given in the first half of 2008. The second module (intervention B) was given in spring and summer of 2009. This seminar was focused on attitude towards recovery and the way the professional is able to stimulate and facilitate recovery within the client. An overview of the training seminars (experimental conditions) with the different measurement occasions is given in Figure 1. Both seminars were given in close cooperation with an expert by experience from the peer support organisation.

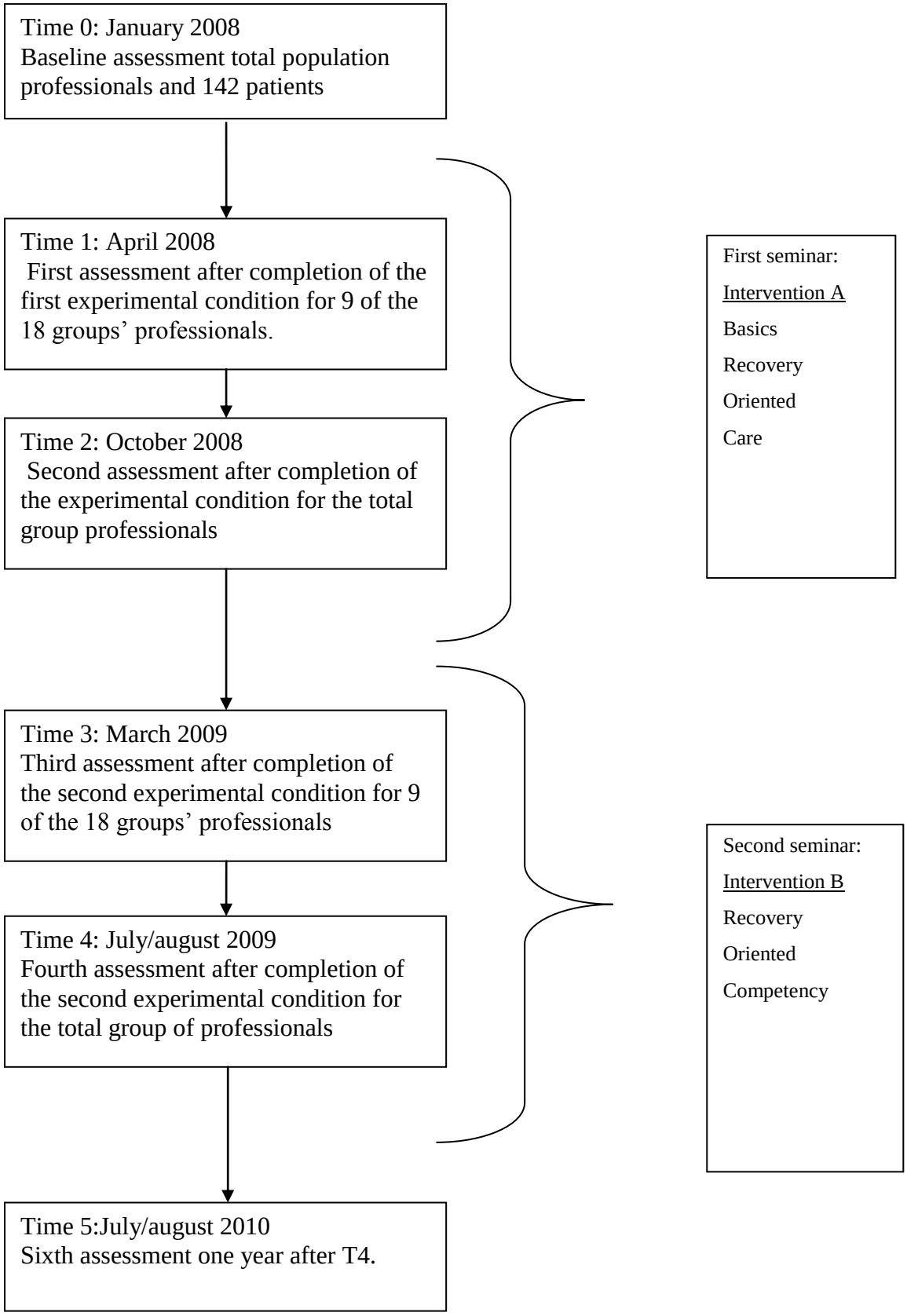

Figure 1: Flowchart of the training and measurements occasions

2.3. Sample of professionals

The sample of professionals was recruited at Impact. All 270 professionals were invited to participate in this longitudinal study. Of these, 210 agreed to participate: their average age was 43.3 (range 20-60) years and 74% was female. Their mean period of employment in the mental healthcare sector was 13.2 years and their mean period of experience dealing specifically with long-term psychiatric disabilities was 11.3 years. The sample of professionals consisted of psychiatrists, psychologists, psychiatric nurses, day-activity workers, care assistants, and other professionals in close contact with clients. The aim of the educational program was to induce a culture change towards recovery in the entire organization. This was the rationale to include (additional) staff members, such as managers and secretaries, working in different settings. Table 1 presents an overview of the demographic characteristics of the study group.

Table 1. Demographic characteristics of the study group (n=210).

	n/mean	*%/sd*
Female	157	74
Mean age in years (SD)	43.3 (10.8)	
Mean working history, in years (SD)	13.2 (10.2)	
Mean working history within chronic care, in years (SD)	11.3 (9.5)	
Working discipline		
Psychiatrist/psychologists	6	3
Psychiatric nurse	117	56
Occupational therapist	32	15
Placement supporter	11	5
Case manager	10	5
Care assistant	10	5
General staff members of Impact*	24	12
Setting of employment		
Clinical intensive care	39	19
Crisis intervention team	6	3
Sheltered and protected care	65	31
Ambulatory care	12	5
Day-activity centre	42	20
Impact general*	26	12
Information not available	20	10

* The Impact general group includes managers, secretaries, administrative employees, and a priest.

2.4. Instruments

In this study, the Dutch versions of the Recovery Knowledge Inventory [RKI; 24] and the Recovery Attitude Questionnaire [RAQ; 25] were used. Both instruments are self-report questionnaires for professionals. The original questionnaires were translated into Dutch using a backward-forward translation procedure [26]. Details of the translation procedure and the psychometric properties of the Dutch scales are provided in Wilrycx et al. [27].

Note: Parallel with the measurement occasions for professionals, data were collected of 142 mental health consumers for which the Mental Health Recovery Measure [MHRM; 28] and the Recovery Promoting Relationship Scale [RPRS; 29] were used. These data will not be used in this study.

2.4.1. Recovery Knowledge Inventory (RKI)

The RKI was used to assess the professionals' general knowledge about recovery over time. The Dutch version of the RKI consists of 14 items and focuses on 'Knowledge of recovery'. Cronbach's alpha for this total scale was 0.80.

2.4.2. Recovery Attitudes Questionnaire (RAQ)

The RAQ was used to assess the professionals' feelings and attitudes towards recovery. The Dutch version of the RAQ consists of 5 items and focuses on 'Attitudes towards recovery'. Cronbach's alpha for the total scale was 0.61.

Correlation between the RAQ and the RKI scale scores was 0.20 ($p=0.004$); this is a significant but low enough correlation to demonstrate that both scales measure different constructs and each instrument has sufficient discriminant validity.

Both instruments were send by mail after each intervention, and participants were asked to complete and return these questionnaires within two weeks.

2.5. Study design

In this study, a two group multiple intervention interrupted time-series design was used which is a variant of the stepped-wedge trial design. The stepped-wedge trial design [19, 30, 31] is a repeated-measures design in which the sample is randomly divided into several subsamples which are observed at all time points but differ with respect to the moment at which the experimental intervention is implemented. At the first measurement occasion, all subsamples are observed prior to the intervention. The moment at which the intervention is systematically implemented varies across the subsamples, but at the end of the study all subsamples are observed after the intervention.

For the present study, the basic stepped-wedge design first was modified because two different interventions (represented by the symbols A and B; see Table 2) were implemented at different times. Intervention B always followed after intervention A. Another modification of the basic design concerned the number of subsamples that could be formed. Although in the present study six measurement occasions were planned, only two subsamples could be formed because of the way the educational program was organised. The training sessions were delivered in two sessions over two years. Table 2 shows when the two interventions were implemented in each subsample.

Table 2. Schedule for the two subsamples in the present study and hypothesized equality of means in the analysis.

	Time					
	0	1	2	3	4	5
Subsample 1	O_1	A_1	A_1	B_1	B_1	B_1
Subsample 2	O_2	O_2	A_2	A_2	B_2	B_2

Note: The subscripts indicate the means that are constrained in the analysis

At the first time point (0), both subsamples were observed before implementation of either A or B. The first subsample was then observed twice after implementation of A, and three times after implementation of B. The second subsample was observed twice before intervention A, twice after intervention A, and finally twice after intervention B. In both subsamples, six measurement occasions (0-5) were planned. At the end of the study, all participants had received both interventions. The time point 5 was observed one year after the time point 4. Since assignment of the subjects to the subsamples was carried out randomly, no systematic differences were expected to exist between the two subsamples.

2.6. Statistical analyses

The differences between the means of the RKI and the RAQ, pre- and post intervention were tested using a random intercept multilevel regression model with time periods nested within individuals. This model is described in a linear structural equation model and its parameters are estimated by means of AMOS. This software package allows full information maximum likelihood estimation of a model without discarding any observed score in the sample. The analysis of the data was based on the following model. Let *i* represent a participant in anyone of the subsample *c*=1 or *c*=2, let *t* denote measurement occasion and y_{cit} the observed score on a dependent variable for participant *i* in subsample *c* at occasion *t*. Then, the following decomposition of the individual scores was postulated:

$$y_{cit} = \mu_{ct} + \upsilon_i + \varepsilon_{cit}$$

In this expression, μ_{ct} represents the population mean for subsample *c* at measurement occasion *t.* The term υ_i is an individual random effect that is included in the model for capturing systematic differences between subjects in the general response level. Finally, the

quantities ε_{cit} are the individual error terms. All random effects are assumed to be mutually independent. Due to the design of the stepped wedge trial design, some of the subsample means μ_{ct} are constrained to be equal (see Table 2).

In Table 2, the symbols O_1 and O_2 represent the observations before the implementation of intervention A in both subsamples; the symbols A_1 and A_2 represent the observations after the implementation of intervention A but before implementation of B in both subsamples; finally, the symbols B_1 and B_2 represent the observations after implementing B.

The first hypothesis, that is whether there are no systematic differences between the means of the two subsamples, resulted in the joint test of three sub hypotheses, $\mu_{O1} = \mu_{O2}$, $\mu_{A1} = \mu_{A2}$, and $\mu_{B1} = \mu_{B2}$. When this first hypothesis cannot be rejected, the number of means to be estimated is further reduced and only three different means remain to be estimated (second hypothesis): μ_O representing the mean before any of the interventions, μ_A representing the mean after implementing A but before implementing B and, finally μ_B representing the mean after implementing B. This second hypothesis tested the following sub hypotheses: whether intervention A has an effect i.e. $\mu_A = \mu_O$, whether intervention B has an effect i.e. $\mu_B = \mu_O$, and, whether the effect of B and A are equal i.e. $\mu_B = \mu_A$. In the model, the effects of intervention A and B are estimated by the differences $\mu_A - \mu_O$ and $\mu_B - \mu_O$, respectively.

Both hypotheses mentioned above were tested by different linear structural equation models in AMOS. The significance of the models were tested by means of conditional likelihood ratio tests which under the null hypothesis follow chi-square distributions with their degree of freedoms equal to the number of constraints imposed on the model parameters. This requires two consecutive models to be tested: in one model without imposing the constraints on the subsample means implied by the hypothesis being tested, and one in which

these constraints are explicitly imposed. Because the two models are nested, the conditional chi-square test is obtained by subtracting the chi-square values of the two analyses [32].

3. Results

3.1. Results for the RKI

For the RKI, the null hypothesis that there were no systematic differences between the means of the two subsamples, could not be rejected with a χ^2 = 1.641 with 3 degrees of freedom (p=0.650). The sample estimates of the three means (represented by M_O = mean before intervention A, M_A = mean after intervention A but before intervention B, and M_B = mean after intervention B, respectively) to be estimated under the reduced model and their standard errors are:

- M_O = 3.027 (0.021)
- M_A = 3.113 (0.019)
- M_B = 3.066 (0.022)

Intervention A has a significant effect since the null hypothesis $\mu_A = \mu_O$ has to be rejected with a χ^2 = 17.888 with 1 degree of freedom (p=0.000). However, the null hypothesis $\mu_B = \mu_O$ cannot be rejected (χ^2 = 2.939, df=1, p =0.086), and intervention B fails to have an effect. Moreover, since the hypothesis $\mu_B = \mu_A$ is also rejected (χ^2=5.783, df=2, p=0.016), the mean after intervention B drops back to the initial level. Intervention B then seems to annihilate the positive effect of intervention A.

3.2. Results for the RAQ

For the RAQ, the null hypothesis that there were no systematic differences between the means of the two subsamples could not be rejected with a χ^2 = 0.890 with 3 degrees of freedom

(p=0.828). The estimates of the three means to be estimated under the reduced model and their standard errors are:

- M_O = 3.008 (0.029)
- M_A = 3.100 (0.031)
- M_B = 3.176 (0.028)

Intervention A has a significant effect since the null hypothesis $\mu_A = \mu_O$ has to be rejected with a χ^2 = 8.097 with 1 degree of freedom (p=0.004). Also the null hypothesis $\mu_B = \mu_O$ has to be rejected (χ^2 = 29.603, df=1, p =0.000), indicating that intervention B has an effect. Finally, also the hypothesis $\mu_B = \mu_A$ is rejected (χ^2=5.783, df=2, p=0.016), and intervention B is seen to have a larger effect than intervention A.

4. Discussion

This study evaluated a recovery training program for professionals in the Netherlands. Specifically, the changes in knowledge and attitudes of mental healthcare professionals towards the recovery of mentally ill patients were investigated using a modified stepped-wedge trial design. The results suggest that, over the total course of the training program, expected changes were found in attitudes towards recovery. Similar findings were reported by Crowe et al. [7], and Cleary and Dowling [6], who found that mental health professionals had more favourable beliefs and more positive attitudes related to recovery during the course of the training program. One explanation for the positive results in the present study might be the way the intervention was given. The trainer was an expert by experience, who reflected on the quality of treatment received in the past thereby generating self-reflection. According to Bandura [33] self-reflection can result in a change of attitudes. Because the professional undergoing training was confronted with reports of maltreatment stories, the educational program had an emotional as well as a learning impact. Secondly, the use of

understandable/appropriate language might contribute to the positive effect and the perceived behavioural control over the implementation.

Positive results were also found for the change in knowledge after intervention A on knowledge about recovery. However, intervention B (that focused mainly on attitude) had a negative effect on knowledge rather than the expected positive cumulative result. This negative result towards knowledge of recovery might be explained as follows. First, the program developers and the department managers did not investigate the professionals' readiness to change. Before educating or training people, it is important that professionals are motivated to learn [34, 35]. Second, the lack of rehearsal of knowledge about recovery during intervention A might be responsible for the negative results after intervention B. Studies show that rehearsal is crucial for the implementation of information and is essential for the integration of new knowledge in long-term memory [36 - 38] . Third, the relatively high age of the professionals might play a role in this poor result, since younger and less experienced people are generally more eager to learn [15]. Forth, because the course was mandatory the extrinsic motivation to change might have been greater than the intrinsic motivation to learn [35]. Finally, as we now know from the recently developed Refocus model [39], the implementation of recovery is much more complex than how it was offered in the training program for professionals discussed in this study. The training program was based on just one part of the Refocus implementation model, namely, staff values, knowledge and partnership and lacked specific training at the work place.

4.1. Limitation and strengths

This study has a number of limitations. First, the original stepped-wedge trial design needed a modification because of the way the training program was organised. Epidemiological studies using this design have generally explored the long-term effect of just one intervention [40-

42], whereas in the present study, the effects of two interventions over a two-year period were examined. Second, there are no reference data for comparison purposes. Reference data of epidemiological studies are available, but data from psycho-social studies using this two group multiple intervention interrupted time-series design are lacking. Third, the multiple measurement occasions made the research vulnerable; because six measurements took place this made it difficult to maintain the cooperation/motivation of the professionals.

The specific strength of this study is that it has many advantages: it enables to investigate the stepwise implementation of new ideas over time, in a practical situation that does not permit to deliver the intervention simultaneously to all participants [20]. Because of the stepwise implementation of the new recovery concept, professionals could maintain their routine practice. Another strong point is that subjects were randomly assigned to one of the two subsamples defined in the modified stepped-wedge trial design. The fact that no systematic differences were found between the two subsamples demonstrated that the randomization was successful. Finally, the modified stepped-wedge trial design is a within-subject design, which makes the inclusion of a 'no intervention' control group less urgent.

5. Conclusion

The study shows that staff knowledge and attitudes regarding recovery from mental illness can improve with training. Mental healthcare workers have more positive attitudes towards recovery in clinical practice after completing the two training sessions. Furthermore, the modification of the stepped-wedge trial design - which resulted in a two group multiple intervention interrupted time-series design - has proved to be a useful and promising design to investigate different groups of subjects within behavioural science.

Conflicts of Interests

The authors declare that there is no conflict of interests.

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References

[1] W.A. Anthony, "A recovery-oriented service system: Setting some system level standards," *Psychiatric Rehabilitation Journal*, vol. 24, pp. 159-168, 2000.

[2] W. Boevink and J. Dröes, "Herstelwerk van mensen met een psychische beperking en wat kunnen hulpverleners doen om hun te ondersteunen?" [Recovery from serious mental illness and what can professionals do to support recovery?] *Psychopraxis*, vol.7 nr. 1, pp. 14-20, 2005.

[3] M. Hugo, "Mental health professionals' attitudes towards people who have experienced a mental health disorder," *Journal of Psychiatric Mental Health Nursing*, vol. 8, pp. 419-425, 2001.

[4] Mental Health Commission, *Recovery Competencies for New Zealand Mental Health Workers*, Wellington, New Zealand, Mental Health Commission, 2001.

[5] South London and Maudsley NHS Foundation Trust and South West London and St. George's Mental Health NHS Trust, *Recovery is for all. Hope agency and opportunity in Psychiatry*, A Position Statement by Consultant Psychiatrists, London, 2010. SLAM/SWLSTG.

[6] A. Cleary and M. Dowling, "Knowledge and attitudes of mental health professionals in Ireland to the concept of recovery in mental health: A questionnaire survey", *Journal of Psychiatric Mental Health Nursing*, vol. 16, pp. 539-545, 2009.

[7] T.P. Crowe, F.P. Deane, L.G. Oades, P. Caputi, and K.G Morland, "Effectiveness of a collaborative recovery training program in Australia in promoting positive views about recovery," *Psychiatric Services*, vol. 57, pp. 1497-1500, 2006.

[8] L.W. Davis and P.H. Lysaker, "Therapeutic alliance and improvements in work

performance over time in patients with schizophrenia," *Journal of Nervous and Mental Disease*, vol. 195, pp. 353-357, 2007.

[9] M. Hendryx, C.A. Green, and N.A. Perrin, "Social support, activities and recovery from serious mental illness," *American Journal of Psychiatry*, vol. 144, pp. 718-726, 2008.

[10] S.J. Onken, J.M. Dumont, P. Ridgway, D. Dornan, and R. Ralph, *Mental Health Recovery: What helps and what hinders?,* Alexandria, VA: National Technical Assistance Center for State Mental Health Planning, National Association of State Mental Health Program Directors, 2002.

[11] R. Whitley, S. Gingerich, W.J. Lutz, and K.T. Mueser, "Implementing the illness management and recovery program in community mental health settings: Facilitators and barriers," *Psychiatric Services*, vol. 60, pp. 202-273, 2009.

[12] P.W. Corrigan , L. Steinerm, S.G. McCracken, B. Blaser, and M. Barr, "Strategies for disseminating evidenced -based practices to staff that treat people with serious mental illness," *Psychiatric Services*, vol. 52, pp. 1598-1606, 2001.

[13] A.F.G. Leentjens and J.S. Burgers, "Welke factoren zijn belangrijk bij het succesvol implementeren van richtlijnen?" [Which factors are important for successful implementation of guidelines?] *Tijdschrift voor Psychiatrie*, vol. 50, pp. 329-335, 2008.

[14] S. Michie and K. Lester, "Words matter: increasing the implementation of clinical guidelines," *Quality and Safety Health Care*, vol. 14, pp. 367-370, 2005.

[15] A.L. Francke, M.C. Smit, A.F. De Veer, and P. Mistiean, "Factors influencing the implementation of clinical guidelines for health care professionals: A systematic meta- review," *BMC Medical Information and Decision Making*, vol. 8, pp. 38, 2008.

[16] C. Redko, R.C. Rapp, C. Elms, M. Snijdes, and R.G. Carlson, "Understanding the working alliance between persons with substance abuse problems and strengths based case managers," *Journal of Psychoactive Drugs*, vol. 39, nr. 3, pp. 241-250, 2007.

[17] C. Clasen, C. Meyer, C. Brun, W. Mase, and K. Cauley, "Development of the competency assessment tool-mental health, an instrument to assess core competencies for mental health care workers," *Psychiatric Rehabilitation Journal*, vol. 27, pp. 10-17, 2003.

[18] M. Piat, J. Sabetti, and D. Bloom, "The transformation of mental health services to a recovery-orientated system of care: Canadian decision maker perspectives," *International Journal of Social Psychiatry*, vol. 56, pp. 168-177, 2010.

[19] C.A. Brown and R.J. Lilford, "The stepped wedge trial design: A systematic review,"*BMC Medical Research & Methodology*, vol. 6, pp. 54.

[20] R. Lilford, "Formal measurement of clinical uncertainty: Prelude to a trial in perinatal medicine," *British Medical Journal*, vol. 308, pp. 111-112, 1994.

[21] L. Korevaar and J. Droës, *Guideline for Rehabilitation, Care and Welfare*, Coutinho, Bussum, 2011.

[22] J.P.Wilken and D. den Hollander, *Rehabilitation and Recovery; A comprehensive approach,* SWP, Amsterdam, 2005.

[23] W. Boevink, *Stories of recovery; Working together with Experiential Knowledge in Mental Health Care,* Trimbos Instituut, Utrecht, 2006.

[24] L.E. Bedregal, M. O'Conell, and L. Davidson, "The Recovery Knowledge Inventory: Assessment of mental health staff knowledge and attitudes about recovery," *Psychiatric Rehabilitation Journal*, vol. 30, pp. 96-103, 2006.

[25] J.B. Borkin, J.R. Steffen, J.J. Ensfield, K. Krzton, H. Wisnick, K. Wilder, and N.

Yangarbar, “Recovery Attitudes Questionnaire: Development and evaluation,” *Psychiatric Rehabilitation Journal*, vol. 24, pp. 95-102, 2000.

[26] A. Cull, M. Sprangers, K. Bjordal, N. Aaronson, K. West, and A. Bottomley, *EORTC Quality of Life Group Translation Procedure,* Brussels: EORTC Quality of Life Group, 1 May, 2007.

[27] G.K.M.L. Wilrycx, M.A. Croon, A. van den Broek, and Ch. van Nieuwenhuizen, “Psychometric properties of three instruments to measure recovery,” *Scandinavian Journal of Caring Science,* vol 26, nr. 3, pp. 607-614, 2012.

[28] S.L. Young and W.A. Bullock, *The Mental Health Recovery Measure,* Available from the University of Toledo, Department of Psychology (918), Toledo, OH, 2003.

[29] Z. Russinova, S.E. Rogers, and M.L. Ellison, R*ecovery Promoting Relationship Scale,* Centre of Rehabilitation Sciences, Boston University, Boston, USA, 2006.

[30] M.A. Hussey and J.P. Hughes, “Design and analysis of stepped wedge cluster randomized trials,” *Contemporary Clinical Trials*, vol. 28, pp. 182-191, 2007.

[31] J. Hughes, R.L. Goldenberg, C.M. Wilfert, M. Valentine, K.S. Mwinga, and J.S.A. Stringer, ”Design of the HIV prevention trials network (HPTN) protocol 054: A cluster randomized crossover trial to evaluate combined access to Nevirapine in developing countries,” *UW Biostatistics Working Paper Series*, vol. 18, pp. 195-187, 2004.

[32] R.B. Kline, *Principles and Practice of Structural Equation Modelling,* Third Edition, New York, Guilford Press, 2011.

[33] A. Bandura, *Social Foundations of Thought and Action: A Social Cognitive Theory*, Englewood Cliffs, N.J., Prentice-Hall, 1986.

[34] F.I. Herzberg, “One more time, how do you motivate employees?,” *Harvard Business Review*, vol. 65, pp. 109-120, 1987.

[35] H. Vroom, *Work and Motivation*, Revised Edition, San Francisco, Jossey-Bass Classics, 1995.

[36] R.C. Atkinson and R.M. Shiffrin, *Human memory: A proposed system and its control processes: The psychology of learning and motivation*, vol. 2, K.W. Spence and J.T. Spence, New York, Academic Press, 1968.

[37] E. Awh, J. Jonides, E.E. Smith, R.B. Buxton, L.R. Frank, T. Love, E.C. Wong, and L.Gmeindl, "Rehearsal in spatial working memory: Evidence from neuro-imaging," *Psychological Science*, vol. 10, pp. 433-437, 1999.

[38] J. Jonides, R.L .Lewis, D.E. Nee, C.A. Lustig, M.G. Berman, and K.S. Moore, "The mind and brain of short term memory," *Annual Review of Psychology*, vol. 59, pp. 193- 224, 2008.

[39] V. Bird, M. Leamy, C. Le Boutillier, J. Williams, and M. Slade, *REFOCUS: Promoting recovery in community mental health services*, London, Rethink, 2011.

[40] C.K. Fairley, R. Levy, C.R. Rayner, K. Allardice, K. Costello, C. Thomas, C. McArthur, D. Kong, and A. Mijch, "Randomized trial of an adherence programme for clients with HIV," *International Journal of STD and AIDS*, vol. 14, pp. 805-809, 2003.

[41] A.J. Hall, H.M. Inskip, F. Loik, N.E. Day, G. O'Connor, X. Bosch, C.S. Muir, M. Parkin, M. Munoz, L. Tomatis, B. Greenwood, H. Whittle, R. Ryder, F.S.J. Oldfield, A.B.H. N'jie, P.G. Smith, and P. Coursaget, "The Gambia Hepatitis Intervention Study," *Cancer Research Journal*, vol. 47, pp. 5782-5787, 1987.

[42] A.D. Hutson and M.E. Reid, "The utility of partial cross-over designs in early phase randomized prevention trials," *Control Clinical Trials*, vol. 25 nr. 5, pp. 493-501, 2004.

Chapter 5

Evaluation of a recovery-oriented care training program for mental healthcare professionals: effects on mental health consumer outcomes

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Submitted

Abstract

Objectives: To examine the effects of a recovery-oriented care training program for mental healthcare professionals on mental health consumer outcomes.

Methods: The Mental Health Recovery Measure (MHRM) and the Recovery Promoting Relationship Scale (RPRS) were administered to a sample of 142 consumers with severe mental illness. A repeated measurement design with six measurement occasions was used.

Analyses: Separate analyses were performed for the MHRM and RPRS subscales. Data were analyzed by means of the software package AMOS for structural equation modeling. First, the means of the five scale were computed at each measurement occasion. Next, two series of regression analyses were conducted: the first series aimed to ascertain whether gender and age have a significant effect on the MHRM and RPRS scores, and the second series aimed to detect a systematic trend in the average scale response of the MHRM and RPRS.

Results: Scores showed a significant change over time for the subscale 'Learning & new potentials' of the MHRM. Significant effects were also found for gender, with men scoring higher than women on the subscales 'Self-empowerment' and 'Learning & new potentials'. Age had no effect on the MHRM and RPRS. The scores on the RPRS showed no significant change over time.

Conclusions: One year after completion of the recovery-oriented training program for professionals, positive results were found for two subscales of the MHRM, i.e. 'Self-empowerment' and 'Learning & new potentials'.

Keywords: mental health, recovery, recovery and gender, recovery promoting relationship

Introduction

During the last decade, recovery has become a more mature concept in Anglo-Saxon countries (Slade, Williams, Bird, Leamy & Le Boutillier, 2012). The National Consensus Statement on Mental Health Recovery defined recovery as: '*a journey of healing and transformation enabling a person with a mental health problem to live a meaningful life in a community of his or her choice while striving to achieve his or her full potentials'* (SAMSHA, 2004). Recovery is focused on personal growth, hope and autonomy (Meehan, King & Beavis, 2008), as well as on learning to live with the negative consequences of the disease (Buckley-Walker, Crowe & Caputi, 2010). This vision of recovery is based on the patient's perspective (Jacobson & Greenley, 2001; Young & Ensing, 1999) and is seen as a continuing process of change which is not illness focused (Antony, 2004). Recent studies show that recovery is linked with terms as connectedness, hope and optimism about the future, identity, meaning in life, and empowerment (Leamy, Bird, Le Boutillier, Williams & Slade, 2011; Van Gestel-Timmermans, Brouwers & Van Nieuwenhuizen; 2010). Todd and colleagues (2012) found that recovery is, indeed, not simply the absence of symptoms but involves personal responsibility and empowerment, and also being connected with other people. In this way, recovery differs from the traditional medically-oriented approach of recovery.

Discussion continues regarding what professionals can do in daily practice to support the unique process of recovery. Harrow and Jobe (2010) stated that, even without treatment, 50% of the patients who are diagnosed with a psychotic disorder experiences some periods of recovery over a number of years. However, it is also known that mental healthcare professionals can affect the recovery process in several ways, i.e. they can support and facilitate (Slade, 2009) as well as hinder the difficult path of recovery (Onken, Dumont, Ridgeway, Dornan & Ralph, 2006). There is increasing evidence that 'inspiring hope' and having the ability to 'empower the patient' are crucial professional competencies to support or

facilitate the recovery process (Lakeman, 2010; Le Boutellier, Leamy, Williams & Slade, 2011; Schrank, Bird, Rudnick & Slade, 2012; Van Gestel-Timmermans, Van den Bogaard, Brouwers, Herth & Van Nieuwenhuizen, 2010).

Considerable research has focused on recovery from serious mental disorders (Emsley, Chiliza, Asmal & Lehloenya, 2011; Harrow & Jobe, 2010). Global characteristics of patients (such as temperament, personality and cognitive traits) seem to influence the course of severe mental illnesses (Harrow & Jobe, 2010) and, therefore, the recovery process. Long-term outcomes appear to be related to gender. For example, differences between men and women were found in the onset and course of disorders, relapse rates and social functioning (Grossman, Harrow, Rosen & Faull, 2006; Ochoa, Usall, Gobo, Labad & Kulkarni, 2012; Sajatovic, Jenkins, Strauss, Butt & Carpenter, 2005) as well as the duration of the untreated psychosis (Cascio, Cella, Preti, Meneghelli & Cocchi, 2012; Davidson, Sells & Roe, 2006).

Besides the influence of a patient's personal characteristics, the existence of meaningful relationships is receiving increasing attention with regard to recovery from severe mental illness. These relationships can be with peers, family members, meaningful others and/or professionals (Hobbs & Baker, 2012; Shön, 2009). According to the recovery movement, the relationship with the professional has to be based on the following characteristics: empathy, presence, disclosure, equality and reciprocity (Boevink, Prinsen, Elfers, Droes, Tiber & Wilrycx, 2009; Davis & Lysaker, 2007; Farkas & Anthony, 2010; Wilken & den Hollander, 2005). The existing paternalistic, illness-oriented approach needs to change to a more recovery-oriented, collaborative, autonomy-stimulating approach (Sowers, 2005), and the services provided need to focus on the belief that mental healthcare users and providers are partners in treatment. The mental healthcare service should be offered within a context of a collaborative relationship with clients (Borg & Kristiansen, 2004; Green, Polen,

Janoff, Castleton, Wisdom, Vuckovic et al., 2008; Leamy, Bird, Le Boutellier, Williams & Slade, 2011; Slade, 2009; Russinova, Rogers & Ellison, 2006).

All these recovery-oriented care characteristics require a different attitude towards recovery from the mental healthcare professional. Therefore, professionals need to be trained in the recovery approach.

Several recovery-oriented training programs for professionals have been evaluated and showed that the attitude and knowledge of mental healthcare professionals towards recovery can change after their training (Bedregal, O'Connell & Davidson, 2006; Crowe, Deane, Oades, Caputi & Morland, 2006; Green, Polen, Janoff, Castleton, Wisdom, Vuckovic & et al., 2008; Kymalainen, Henze, Deluca, Mitton, Walton, Duffy & et al., 2010; Tsai, Salyers & McGuire, 2011; Tsai, Salyers & Lobb, 2010; Wilrycx, Croon, Van den Broek & Van Nieuwenhuizen, 2012). However, little is known about the effect of these changes in attitude and knowledge of professionals on mental healthcare consumer outcomes.

Therefore, the present study evaluates the effectiveness of a recovery-oriented training program for mental healthcare professionals. More specifically, the study aimed to answer the following questions:

1) Does a recovery-oriented training program for professionals promote patients' experienced empowerment and autonomy?
2) To what extent are empowerment and the perceived working relationship related to patients' characteristics such as gender and age?
3) Do patients perceive the relationship with the professional to be more recovery-oriented after the professional has completed the training program?

Methods

Recovery-oriented training program

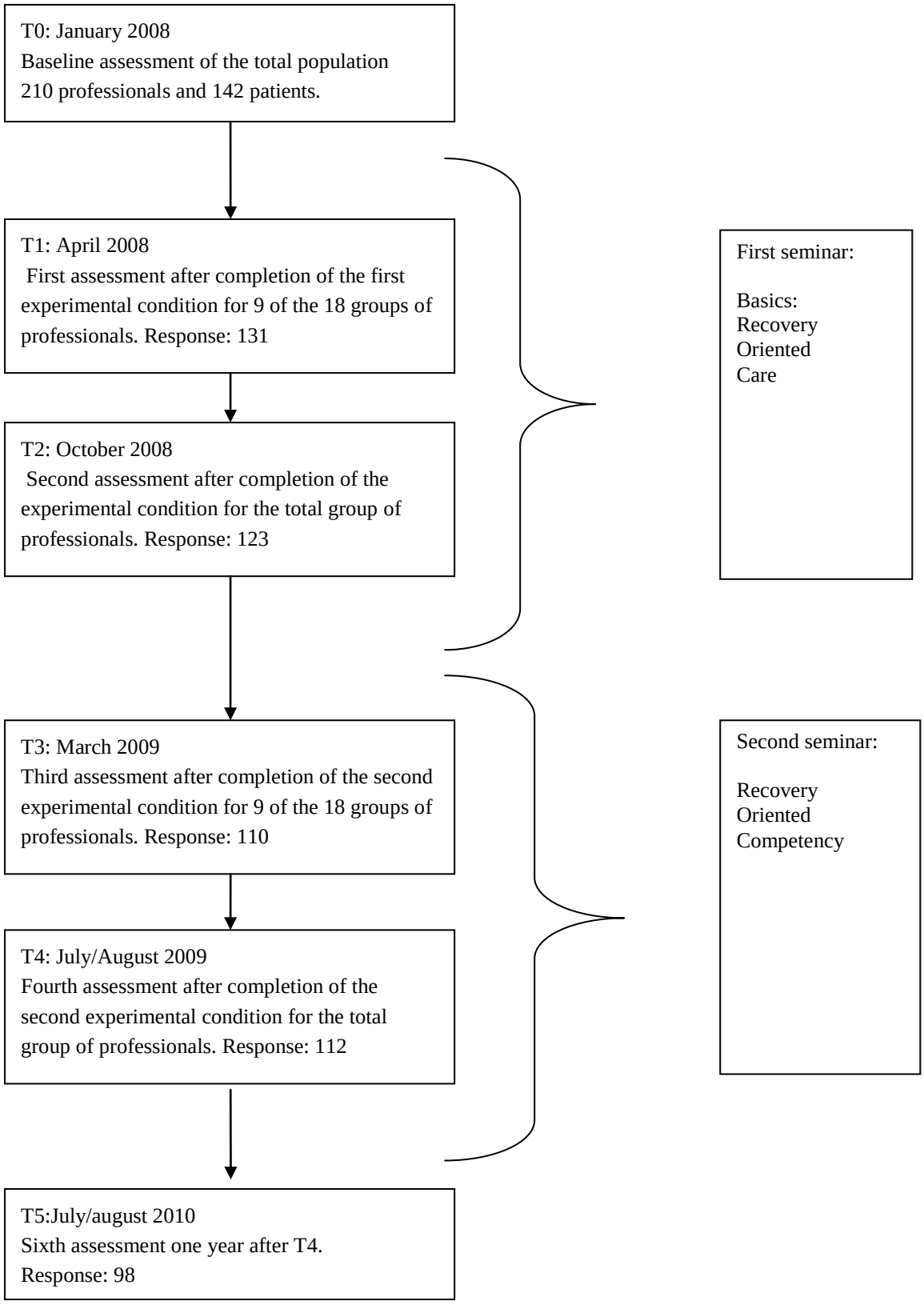
To implement the new recovery vision, a recovery-oriented care training program was developed by three major mental healthcare organizations: i.e. two rehabilitation organizations Rehabilitation ’92, (Korevaar & Dröes, 2011) and STORM rehabilitation (Wilken & Den Hollander, 2005) and one peer-support organization (HEE, Boevink, 2006), The ‘Recovery and recovery-oriented care’ training program was specifically developed for the mental healthcare network ‘Impact’ for long-term mentally ill people. The main goal of the project was to create and promote a new culture towards recovery from serious mental illness: how can treatment promote the recovery process of patients with long-term psychiatric problems and does the relationship with the mental health professional facilitate recovery? (Anthony, 2000; Boevink & Droes, 2005; Hugo, 2001; Mental Health Commission New Zealand, 2000)

The recovery-oriented care training program was given in two separate intensive training sessions, one in 2008 and a second one in 2009. The training program was developed for all professionals (e.g. psychologists, psychiatrists, secretaries, managers and nurses) who are in close contact with mental healthcare patients. The recovery-oriented training program consisted of two seminars given in a two-day session every six months; participants were randomly selected and 20 groups were formed with 10-16 professionals per group. The first seminar ‘Basics of recovery and recovery-oriented care’ (intervention A) was given in the first half of 2008. The second seminar (intervention B) was given in spring and summer of 2009; this seminar focused on attitudes towards recovery and the way the professional is able to stimulate and facilitate recovery within the client. Figure 1 presents an overview of the training seminars with the different measurement occasions (for professionals and patients)

and the corresponding response rates. Both training seminars were given in close cooperation with an expert from the peer-support organisation.

More detailed information on the training program is available in Wilrycx et al. (2012).

Figure 1: Flow chart of the study assessments



Procedure

All mental healthcare workers of the department 'Impact' (the department for long-term mentally ill people in Breda/Etten-Leur) were asked to participate in a training program on recovery-oriented care. All participants were verbally informed by their managers and also received an information flyer about the program; all gave informed consent before the study started. The recovery-oriented training program was mandatory for all professionals. Parallel to the training program, an evaluation study was conducted to assess the effects of the recovery-oriented training program on professionals' and patients' outcomes. The study started at the beginning of 2008 and ended in the summer of 2010 (Figure 1). Prior to participation, all patients were verbally informed by their personal mental health professional, received written information about the research program, and all provided informed consent.

In this study, participants were asked to fill in the Mental Health Recovery Measure (MHRM) and the Recovery Promoting Relationship Scale (RPRS). Participants received the questionnaires by regular mail; they were asked to complete the questionnaires as soon as possible, but within at least two weeks after receiving the questionnaires.

Prior to study start, the regional Medical Ethics Approval Committee for Mental Health Care Institutions (METIGG) was approached. In the Netherlands, according to the Medical Research Involving Human Subjects Act, ethical approval was not required for the present study.

Sample characteristics

In this study, a total of 360 patients with long-term psychological/psychiatric disorders from Impact were approached either personally or by telephone. Only participants aged ≥ 18 years and with a good understanding of the Dutch language were approached. A sample of 142 (i.e. 39% of the approached population) agreed to participate. The remaining 61% either felt unable to participate, or had no interest. The average age of the participants was 49.1

(range 18-78; SD 13.1) years and of the non-participants 50.6 (range 18-93; SD 17) years. The mean number of years of treatment of the participants was 14.16 (SD 10.3) years. Table 1 presents the characteristics of the participants.

Table 1**:** Characteristics of the mental healthcare consumers: participants (N=142) and non-participants (N=218)

	Participants	***Non- participants***
	M	*M*
Age in years	49.1 (13.1)	50.6 (17)
Number of years of treatment	14.06 (10.3)	Data not available
	N/%	*N/%*
Gender		
Female	89 (63)	101 (46)
Psychiatric characteristics		
DSM IV-R classification Axis I		
Schizophrenia, psychotic disorders	46 (35)	91 (44)
Mood disorders	40 (31)	59 (29)
Anxiety disorders	8 (6)	15 (7)
Substance-related disorder	7 (5)	8 (2)
No diagnosis on Axis I	4(3)	5 (3)
Other (including ADHD and ASD)	25 (19)	30 (15)
DSM IV-R classification Axis II		
Cluster A	4 (3)	14 (7)
Cluster B	20 (16)	29 (14)
Cluster C	17 (14)	21 (10)
NOS	23 (18)	44 (21)
Other	6(3)	8 (4)
No diagnosis on Axis II	42 (33)	78 (37)

ADHD = Attention Deficit Hyperactive Disorder ASD = Autism Spectrum Disorder NOS = Not Otherwise Specified

Instruments

Recovery Promoting Relationship Scale (RPRS)

The RPRS is a self-report questionnaire for patients. The Dutch RPRS is a 22-item scale that measures the generic components of mental health providers' recovery-promoting professional competence (Russinova, Rogers & Ellison, 2006; Wilrycx, Croon, Van den Broek & Van Nieuwenhuizen, 2011). Items are scored on 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree), and also with 5 (not applicable).

The Dutch version of the RPRS consists of two subscales. The first comprises 17 items and reflects the recovery-related strategies, e.g. providing 'hope' and the ability to 'empower the patient'. The second subscale comprises five items and represents the provider's skills to enhance client's self acceptance. The Cronbach's alphas for the subscales are 0.93 and 0.87, respectively. The correlation between the mean scale scores for both scales was 0.66.

Mental Health Recovery Measure (MHRM)

The MHRM (Van Nieuwenhuizen, Wilrycx, Moradi & Brouwers, 2013; Young & Bullock, 2003) is a self-report instrument designed to assess the recovery process of persons with severe mental illness. The Dutch 30-item version comprises three subscales: Self-empowerment, Learning & new potentials and, Spirituality. All items are rated on a 5-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. The Cronbach's alpha coefficients for the three subscales are 0.90, 0.86 and 0.94, respectively.

Design

In the present study (which took two years to complete) a repeated measurement design with six measurement occasions was employed.

Data analysis

Separate analyses were performed for the three MHRM and the two RPRS scales. First, the means of the five scales were computed at each measurement occasion. Next, two series of regression analyses were conducted: the first aimed to ascertain whether gender and age have a significant effect on the MHRM and RPRS scores (=response variables), whereas the second series aimed at detecting a systematic trend in the average scale response of the MHRM and RPRS. The series of regression analyses was based on the following statistical model for the scores of individual *i* at time *t*

$$y_{it} = \mu_t + \alpha\, Dgender + \beta_1 Dage_1 + \beta_2 Dage_2 + u_i + e_{it}.$$

Separate analyses were performed for the three MHRM and the two RPRS scales. In the model equation above, these scale scores are represented by y_{it} for individual *i* at time *t*.

Since gender and age were assumed to have a potential effect on the scale scores, both variables were included in the regression equation by means of dummy variables. The dummy variable *Dgender* represents gender and was defined as *Dgender*=0 for Women, *Dgender*=1 for Men. A subject's age was categorized in three categories: 18-42, 43-57, and 57-78 years, and these three categories were represented by two dummy variables $Dage_1$ and $Dage_2$ with the third category being taken as the reference category. The intercepts μ_t represent the overall mean at time t after controlling for gender and age. It is expected that these means will increase over time, indicating that the intervention has a cumulative positive effect on patients' outcomes. Finally, the quantities u_i are random effects representing individual differences between the patients that remain constant over time and are not explained by gender and age. These random effects, which are assumed to be uncorrelated with both gender

and age, are introduced in the model to account for the eventual dependencies among the observations made on the same subject.

The model described above could in principle be estimated and tested as a multilevel regression model by the appropriate SPSS procedure MIXED. However, this procedure applies list-wise deletion to resolve the problem of missing data. As is commonly observed in longitudinal studies, the dropout of subject's increases over time and this study is no exception. Starting with a sample of 142 subjects drop-out was cumulative so that, at the end of the study, about 30% of the subjects were no longer participating (Fig. 1). List-wise deletion would then result in a considerable loss of subjects, although most had provided useful information at the start of the study before finally dropping-out. Therefore, it was decided to analyze the data by means of the software package AMOS for structural equation modeling. Application of this package results in full information maximum likelihood (FIML) estimates of the model parameters. In this approach, every subject with at least one observed score remains in the analysis, and all their observed scores effectively contribute to the estimation procedure. It has been shown that FIML has better statistical properties than ad hoc methods like list-wise deletion (Enders, 2001; Newman, 2003). However, this approach requires that the model is recast in the form of a structural equation model. As indicated by Rovine and Molenaar (2000), this can be achieved by considering the individual random effects u_i as scores on a common latent factor on which all measurement occasions have a fixed unit factor loading, and by simultaneously treating the explanatory dummy variables as exogenous in the model.

Results

In a preliminary analysis, the 142 patients who participated were compared with the 218 non-participants. The average age of the participants was 49.1 (range 18-78; SD 13.1)

years and of the non-participants 50.6 (range 18-93; SD 17) years (Table 1). There was no significant difference between the two groups with respect to age (t = -0.93, df=358, p=0.35). To compare the two groups for differences on the psychiatric diagnosis (main diagnosis on Axis I and II) and gender, chi-square independence tests were performed. The only significant result was found for gender: χ^2=9, 22 (df=1, p=0.002), whereby significantly more women than men agreed to participate. There were no significant differences between the two groups for Axis I (χ2=7.115, df=6, p=0.31) and Axis II (χ2=5.620 df=6, p=0.47) diagnoses. Therefore, we can conclude that, except for gender, there were no systematic differences between the participants and non-participants.

As a first step in the proper analysis of the data, the means of the five scales were computed at each measurement occasion (Table 2). An inspection of the scale means for 'Self-empowerment 'and 'Learning & new potentials' shows that the means remain constant over the first five time points, but that the mean at T=6 is clearly larger than the overall level at the previous five time points.

Table 2: Scale means at different measurement occasions with standard errors between parentheses.

Scale	$\hat{\mu}_1$	$\hat{\mu}_2$	$\hat{\mu}_3$	$\hat{\mu}_4$	$\hat{\mu}_5$	$\hat{\mu}_6$
MHRM						
Self-empowerment	3.34 (0.06)	3.25 (0.06)	3.33 (0.06)	3.31 (0.08)	3.36 (0.06)	3.42 (0.08)
Learning and new potentials	3.51 (0.05)	3.47 (0.06)	3.47 (0.05)	3.48 (0.06)	3.51 (0.06)	3.68 (0.06)
Spirituality	3.16 (0.10)	2.98 (0.11)	3.03 (0.11)	3.06 (0.11)	3.13 (0.11)	3.15 (0.11)
RPRS						
Hopefulness and empowerment	3.60 (0.04)	3.49 (0.05)	3.54 (0.06)	3.56 (0.06)	3.61 (0.06)	3.42 (0.07)
Self-acceptance	3.53 (0.05)	3.38 (0.07)	3.49 (0.06)	3.47 (0.07)	3.47 (0.07)	3.38 (0.11)

MHRM = Mental Health Recovery Measure RPRS = Recovery Promoting Relationship Scale

Next, two series of regression analyses were performed: a first series aimed to ascertain whether gender and age have a significant effect on the response variables, whereas the second series aimed at detecting a systematic trend in the average scale response.

In the first series of analyses, the full regression model described in the previous section was estimated for each of the three MHRM and two RPRS scales, and the significance of the regression coefficients of the three dummy variables was tested. For each of the five scales the null hypothesis, which states that all three regression coefficients $\alpha, \beta_1, \text{and } \beta_2 \text{ are}$ equal to zero, was tested by means of a conditional likelihood ratio test against the alternative model, which leaves these three parameters free. Under the null hypothesis, the test values follow a chi-square distribution with three degrees of freedom, this being equal to the number of constraints imposed on the parameters. Table 3 summarizes the results of this conditional testing procedure.

Table 3: Conditional chi-square tests for significance of regression coefficients of dummy variables

Scale	CMIN (df=3)	P-value
MHRM		
Self-empowerment	11.723	0.008
Learning and new potentials	8.845	0.031
Spirituality	4.986	0.173
RPRS		
Hopefulness and empowerment	0.277	0.964
Self-acceptance	1.572	0.666

MHRM = Mental Health Recovery Measure RPRS = Recovery Promoting Relationship Scale

The hypothesis of no effects for gender and age could only be rejected for the two subscales of the MHRM: Self-empowerment and Learning & new potentials. Furthermore, closer inspection of the results for the individual regression coefficients showed that for both scales it was the regression coefficient for the dummy variable representing gender that made the difference. The estimates of this regression coefficient were 0.364 (SE=0.107, t=3.391,

p<0.001) and 0.201 (SE=0.091, t=2.217, p=0.027) for MHRM F1 (self-empowerment) and MHRM F2 (Learning and the actualization of new potentials), respectively. The positive values of the regression estimates indicate that, holding all other explanatory variables constant, men tend to score higher on the two scales than women. On the other hand, the estimates of the dummy variables representing the age categories failed to show a significant value, revealing no systematic differences between the age categories.

A second series of regression analyses aimed at testing whether the mean parameters μ_t do (or do not) change over time, by carrying out conditional chi-square tests of the null hypothesis that all mean parameters are equal against the alternative model which leaves these parameters unconstrained. Table 4 summarizes the results of these conditional chi-square tests. For each scale it supplies the value of the chi-square test statistics and its probability level under a chi-square distribution with five degrees of freedom. The last column contains the estimate of the constant mean scale score estimated under the null hypothesis, together with its standard error. Since gender had a significant effect on the two subscales of the MHRM, the comparison of the scale means for these two subscales was based on a model in which gender was included as an explanatory variable. For the remaining scales the comparison of the scale means was based on analyses with no additional explanatory variables.

Table 4: Conditional chi-square test of null hypothesis of equal means at different measurement occasions.

Scale	χ^2 (df=5)	P-value	$\hat{\mu}$
MHRM			
Self-empowerment	6.382	0.27	3.20 (0.07)
Learning and new potentials	14.505	0.01	3.42 (0.06)
Spirituality	5.532	0.35	3.10 (0.09)
RPRS			
Hopefulness and empowerment	6.131	0.29	3.56 (0.03)
Self-acceptance	7.757	0.17	3.47 (0.04)

Note: The results for MHRM F1 and MHRM F2 are based on analyses in which gender is included as an explanatory variable. The analyses for the remaining scales did not include explanatory variables.

MHRM = Mental Health Recovery Measure RPRS = Recovery Promoting Relationship Scale

The hypothesis of no mean change over time could only be rejected for one scale: the second subscale of the MHRM, i.e. learning & new potentials. Closer inspection of the scale means for this variable shows that the means remain constant over the first five time points, but that the mean at T=6 is clearly larger than the overall level at the five previous time points. This was confirmed by a significance test of the hypothesis that only the means over the first five time points remained constant, while the mean at T=6 was left unconstrained. This hypothesis could not be rejected: χ^2 = 1.914 for df = 4 and p =0.752. Including the mean at T=6 in the equality constraint led to a clear rejection of the corresponding hypothesis, as is shown by the conditional chi square test statistic χ^2 = 12. 591 for df =1 and p <0.001.

Discussion

This study is a first attempt to examine the indirect effects of a recovery-oriented training program for professionals towards the recovery vision, on mental health consumer's outcomes. The results show that patients make a start with their individual recovery process during and after the recovery-oriented training program of professionals.

The positive changes in mean scores over time on the subscales 'Self-empowerment' and 'Learning & new potentials' of the MHRM, indicate that professionals are able to empower patients, and can stimulate patient's autonomy. The results also show that men have better results on these subscales of the MHRM than women. This suggests that men are easier to empower than women and more often grasp the opportunity to undertake new activities. Research on severe mental illnesses has shown that gender can indeed influence the recovery process. The following characteristics from a gender perspective might explain our results. First, men tend to fulfill the expected norm more than women (West & Zimmerman, 1987) and, second, independence is more highly valued by men than by women (Sajatovic et al, 2005). Furthermore, the existence of role stereotyping behavior of the professional towards patients can promote the recovery process. Shön (2010) mentioned that the existence of different expectations placed on men and women by society may play an important role in the recovery process and, therefore, in the treatment of people with severe mental illness.

On the other hand, age failed to have a significant effect on any scale. Because younger persons are generally more eager to learn (Francke, Smit, De Veer & Mistiean, 2008), it was expected that younger patients would score better on (specifically) the subscale of the MHRM (Learning & new potentials) than older patients; however, this did not occur. Because in the present study no difference was found between younger and older patients, this means that age is not related to the moment that patients make a start with their recovery process. Nevertheless, the positive results on two subscales of the MHRM support the findings of Harrow and Jobe (2010) that (spontaneous) episodes of recovery can occur even without treatment.

The present results also show that the relationship with the professional is not experienced as a more recovery-oriented one. Scores on the RPRS show that patients do not necessarily experience the relationship with the trained professional as facilitating and

supportive towards their individual recovery process. Results show no difference between men and women patients during and after the training program was given. Therefore, the results of this study do not support a possible causal relationship between the behavior of the professional towards the patient (working alliance) and the individual recovery process. However, it is shown that the working alliance within the field of psychotherapy is generally seen as effective (Orlinsky, Ronnestad, & Willutski, 2004). Hicks and colleagues (Hicks, Dean and Crowe, 2012) found it difficult to make a statement about the causal relationship between the working alliance and recovery of severe mental illness; they found that changes in the alliance predicted recovery, but that changes in recovery also predicted the alliance.

With regard to the working relationship, in the present study a complicating factor was that, during the training program, many changes in the care organization were either pending or taking place. For example, more ambulatory treatment was implemented for the severe mentally ill patient. Moreover, patients were treated by different professionals which probably influenced the perceived alliance. This might explain our poor results on the RPRS. The present results indicate that more research on the effect of gender is needed, and on the causality between the working alliance and recovery of severe mental illness.

The present study has some limitations that need addressing. First, we know now from the refocus model (Slade, 2012) that the implementation of recovery is much more complex than the recovery-oriented care training program that is offered in this organization. The training program is based on only one part of the REFOCUS program (i.e. staff values, knowledge and partnership) and lacked specific training in working practices. This is a limitation of the training program and therefore a limitation of the present study. However, despite this limitation, positive results were found on the MHRM.

Second, regarding the outcomes on the RPRS, this study might have been improved had we been able to investigate specific couples of ‘professional and patient’. This could have offered more insight into changes in the relationship during the training program. However, although this item was fully discussed before starting the evaluation study, it proved impossible because of the way the study was conducted. Moreover, the organization was rapidly changing and not all professionals remained in the same department; all these factors prevented forming stable professional/patient couples over time.

A strength of this study is that it is the first in which the indirect influence of a recovery-oriented training program for professionals is measured on mental health consumer outcomes. On the other hand, it should be mentioned that the lack of reference data makes some of the results somewhat difficult to interpret.

Conclusion

The present study demonstrates that patients with serious mental illness can make a start with their recovery process while professionals were trained or are trained in the recovery vision. However, the results also show that the relationship with the professional is not experienced as a more recovery-oriented one during and after the recovery-oriented training program for professionals. This study indicates that more research is needed on how patients can actually be empowered by professionals, in which ways gender influences the process of recovery, and how the working alliance between the professional and patient influences the recovery of severe mental illness.

References

Anthony, W.A. (2000). A recovery-oriented service system: Setting some system level Standards. *Psychiatric Rehabilitation Journal, 24,* 159-168.

Anthony, W.A. (2004). Bridging the gap between values and practice. *Psychiatric Rehabilitation Journal, 28,* 105-106.

Bedregal, L. E., O'Conell, M., & Davidson, L. (2006). The Recovery Knowledge Inventory. *Psychiatric Rehabilitation Journal, 30,* 96-103.

Boevink, W. (2006). Verhalen van herstel; samen werken met ervaringskennis in de geestelijke gezondheidszorg. [Stories of recovery; working together with experiential knowledge in mental health care.] Utrecht, the Netherlands, Trimbos Instituut.

Boevink, W., & Dröes, J. (2005). Herstelwerk van mensen met een psychische beperking en wat kunnen hulpverleners doen om hun te ondersteunen? [Recovery from serious mental illness and what can professionals do to support recovery?] *Psychopraxis, 7,* 14-20.

Boevink, W., Prinsen, M., Elfers, L., Droes, J., Tiber., & Wilrycx, G. (2009). Herstelondersteunende zorg, een concept in ontwikkeling. [Recovery oriented care: A new concept.] *Tijdschrift voor Rehabilitatie, 18,* 42-54.

Borg, M., & Kristiansen, K. (2004). Recovery oriented professionals: Helping relationships in mental health services. *Journal of Mental Health, 13,* 493-505.

Buckley-Walker, K., Crowe, T., & Caputi, P. (2010). Exploring identity within the recovery process of people with serious mental illnesses. *Psychiatric Rehabilitation Journal, 33,* 219-227.

Cascio, M.T., Cella, M., Preti, A., Meneghelli, A., & Cocchi, A. (2012). Gender and duration of untreated psychosis: A systematic review and meta- analysis. *Early Intervention Psychiatry, 6,* 115-27.

Crowe, T. P., Deane, F.P., Oades, L.G., Caputi, P., & Morland, K.G. (2006). Effectiveness of a collaborative recovery training program in Australia in promoting positive views about recovery. *Psychiatric Services, 57,* 1497-1500.

Cull, A., Sprangers, M., Bjordal, K., Aaronson, N., West, K., & Bottomley, A. (2002). EORTC Quality of Life Translation Procedure, EORTC Quality of Life 2002. Unit, Brussels, Belgium.

Davidson, L., Chinman, M., Sells, D., & Rowe, M. (2006). Peer support among adults with serious mental illness: A report from the field. *Schizophrenia Bulletin, 34,* 443-450.

Davis, L.W., & Lysaker, P.H. (2007). Therapeutic Alliance and Improvements in work performance over time in patients with schizophrenia. *Journal of Nervous and Mental Disease, 195,* 353-357.

Emsley, R. Chiliza, B., Asmal, L., & Lehloenya, K. (2011). The concepts of remission and recovery in schizophrenia. *Current Opinion of Psychiatry, 24*, 114-21.

Enders, C.K. (2001). The performance of the full information maximum likelihood estimator in multiple regression models with missing data. *Educational and Psychological Measurement, 61*, 713-740.

Farkas, M., & Anthony, W.A. (2010). Psychiatric Rehabilitation Interventions: A review. *International Review of Psychiatry, 22*, 114-129.

Francke, A.L., Smit, M.C., De Veer, A.F., & Mistiean, P. (2008). Factors influencing the implementation of clinical guidelines for health care professionals: A systematic meta-review, *BMC Medical Information and Decision Making, 8*, 38-47.

Green, C.A., Polen, M.R., Janoff, S.L., Castleton, D.K., Wisdom, J.P., Vuckovic, … Onken, S.L. (2008). Understanding how clinician-patient relationships and relational continuity of care affect recovery from serious mental illness: STARS study results. *Psychiatric Rehabilitation Journal, 32*, 9-22.

Grossman, L.S., H M., Rosen, C., Faull, R., & Strauss G.P. (2008). Sex differences in schizophrenia and other psychotic disorders: A 20 year longitudinal study of psychosis and recovery. *Comprehensive Psychiatry, 49*, 523-529.

Harrow, M., & Jobe, T.H. (2010). How frequent is chronic multiyear delusional activity and recovery in schizophrenia: a 20-year multi-follow-up. *Schizophrenia Bulletin, 36*, 192-204.

Harrow, M., & Jobe, T.H. (2007). Factors involved in outcome and recovery in schizophrenia patients not on anti-psychotic medications: A 15 years multi-follow up study. *Journal of Nervous and Mental Disorders, 195*, 406-414.

Hicks, A.L., Deane, F.P., & Crowe, T.P. (2012). Change in working alliance and recovery in severe mental illness: an exploratory study. *Journal of Mental Health, 21*, 127-134.

Hobbs, M., & Baker, M. (2012). Hope for recovery – how clinicians may facilitate this in their work. *Journal of Mental Health, 21*, 144-153.

Hugo, M. (2001). Mental health professionals 'attitudes towards people who have experienced a mental disorder. *Journal of Psychiatric Mental Health Nursing, 8*, 419-425.

Jacobson, N., & Greenley, D. (2001). What is recovery? A conceptual model and explication. *Psychiatric Services, 52*, 482-485.

Korevaar, L., & Dröes, J.(2011). *Guideline for Rehabilitation, Care and Welfare*, [Handboek rehabilitatie voor zorg en welzijn]. Bussum, the Netherlands: Coutinho .

Kymalainen, J.A., Henze, K.T., DeLuca, M., Mitton, T.A., Walton, H.M., Duffy, P.,… Pinsky, J. (2010*).* Are we there yet? The four-year impact of a VA fellowship program on the recovery orientation of rehabilitation programs. *Psychiatric Rehabilitation Journal, 33*, 320-332.

Lakeman, R. (2010). Mental health recovery competencies for mental health workers: A Delphi study. *Journal of Mental Health, 19*, 62-74.

Le Boutillier, C., Leamy, M., Bird, V.J., Davidson, L., Williams, J., & Slade, M. (2011). What does recovery mean in practice? A qualitative analysis of international recovery-oriented practice guidance. *Psychiatric Services, 62*, 1470-1476.

Leamy, M., Bird, V., Le Boutillier, C., Williams, J., & Slade, M. (2011). A conceptual framework for personal recovery in mental health: Systematic review and narrative synthesis. *British Journal of Psychiatry, 199*, 445-452.

Lysaker, P.H., Ringer, J., Maxwell, C., McGuirea, A., & Lecomte, T. (2010). Personal narratives and recovery from schizophrenia. *Schizophrenia Research, 121*, 271-276.

Meehan, T.J., King, R.J., Beavis, P.H., & Robinson, J.D. (2008). Recovery based practice; do we know what we mean or mean what we know*? Australian and New Zealand Journal of Psychiatry, 42*, 177-182.

New Zealand Mental Health Commission (2001). *Recovery Competencies for New Zealand Mental Health Workers*. Wellington, New Zealand, Mental Health Commission.

Newman, D.A. (2003). Longitudinal modeling with randomly and systematically missing data: A simulation of ad hoc, maximum likelihood, and multiple imputation techniques. *Organizational Research Methods, 6*, 328-362.

Ochoa, S., Usall, J.,Gobo, J., Labad, X., & Kulkarni, J. (2012). Gender differences in schizophrenia and first-episode psychosis: A comprehensive literature review. *Schizophrenia*

Research and Treatment. Volume 2012. Retrieved from http://dx.doi.org/ 10.1155/ 2012/ 916198

Onken, S.J., Dumont, J.M., Ridgeway, P., Dornan, D.H., & Ralph, R.O. (2006). *Mental health recovery: What helps and what hinders?* A national research project for the development of recovery facilitating system performance indicators. International Recovery Perspectives: Implications- Innovations –Implementation, November 16-17, Ontario: University of Toronto.

Orlinsky, D.E., Ronnestad, M.H., & Willutski, U. (2004). Fifty years of psycho therapy process-outcome research: Continuity and change. In Lambert (Ed), Bergin and Garfields *Handbook of psychotherapy and behaviour change* (pp.307-389). Fifth edition. New York: Wiley & Sons.

Redko, C.R.C., Rapp, R.C., Elms,C., Snijdes, M., & Carlson, R.G. (2007). Understanding the working alliance between persons with substance abuse problems and strengths based case managers. *Journal of Psychoactive Drugs, 39,* 241-250.

Rogers, E.S., Ralph, R.O., & Salzer, M.S. (2010) Validating the empowerment scale with a multisite sample of consumers of mental health services. *Psychiatric Services, 61*, 933-936.

Rovine, M.J., & Molenaar, P.C. (2000). A structural modeling approach to a multilevel random coefficient model. *Multivariate Behavioral Research, 35*, 51-88.

Russinova, Z., Rogers, S.E., & Ellison, M.L. (2006) *Recovery Promoting Relationship Scale.* Centre of Rehabilitation Sciences, Boston, USA: Boston University.

Sajatovic, M., Jenkins, J., Strauss, M., Butt, Z., & Carpenter, E. (2005). Gender identity and implications for recovery among men and women with schizophrenia. *Psychiatric Services, 1,* 96-98.

Schön, U.K. (2010). Recovery from severe mental illness, a gender perspective. *Scandinavian Journal of Caring Sciences, 24,* 557-564.

Schön, U.K., Denhov, A. & Topor, A. (2009). Social relationships as a decisive factor in recovery from severe mental illness. *International Journal of Social Psychiatry, 55,* 336-347

Schrank, B., Bird, V., Rudnick, A., & Slade, M. (2012). Determinants, self-management strategies and interventions for hope in people with mental disorders: Systematic search and narrative review. *Social Science and Medicine, 74,* 554–564.

Slade, M. (2009). *100 ways to support recovery: A guide to mental health professionals.* Rethink recovery series: volume 1. London, United Kingdom: Rethink.

Slade, M., Williams, J., Bird, V., Leamy, M., & Le Boutillier, C. (2012). Recovery grows up, *Journal of Mental Health, 21,* 99-104.

South London and Maudsley NHS Foundation Trust and South West London and St. George's Mental Health NHS Trust (2005). *Recovery is for all. Hope agency and opportunity in psychiatry*. A position statement by Consultant Psychiatrist. London: SLAM/SWLSTG.

Sowers, W. (2005). Transforming systems of care: The American association of community psychiatrists guidelines for recovery oriented services. *Community Mental Health Journal, 41,* 757-774.

Substance Abuse and Mental Health Service Administration (SAMSHA), (2004). National Consensus Statement on Mental Health Recovery. Retrieved from http://dounload.ncadi.samhsa.gov/ken/pdf/ SMA05-4129/trifold.pdf

Todd, N.J., Jones, S.H., & Lobban, F.A. (2012). "Recovery" in bipolar disorder: How can service users be supported through a self-management intervention? A qualitative focus group study. *Journal of Mental Health, 21*, 99-104.

Tsai, J., Salyers, M.P., & McGuire A.B. (2011). A cross sectional study of recovery training and staff attitudes in four community mental health centers. *Psychiatric Rehabilitation Journal, 34*, 186-93.

Tsai, J., Salyers, M.P., & Lobb, A.L. (2010). Recovery oriented training and staff attitudes over time in two states. *Psychiatric Questions, 81*, 335-47.

Van Gestel-Timmermans, J.A.W.M., Brouwers, E.P.M. & Van Nieuwenhuizen, Ch. (2010). Recovery is Up to You, a peer run course. *Psychiatric Services, 61,* 944-945.

Van Gestel-Timmermans, J., Van den Bogaard, J., Brouwers, E.P.M., Herth, K., & Van Nieuwenhuizen, Ch. (2010). Hope as a determinant of mental health recovery: A

psychometric evaluation of the Herth Hope Index-Dutch version. *Scandinavian Journal of Caring Sciences, 24*, 67-74.

Van Nieuwenhuizen, Ch., Wilrycx, G., Moradi, M., & Brouwers, E.P.M. (2013). Psychometric evaluation of the Dutch version of the Mental Health Recovery Measure (MHRM). International *Journal of Social Psychiatry*, *58*, 521- 531.

Wilken J.P., & Den Hollander D. (2005). Rehabilitation and Recovery, a comprehensive approach. Amsterdam, the Netherlands: Uitgeverij SWP.

Wilrycx, G.K.M.L., Croon, M.A., Van den Broek, A., & Van Nieuwenhuizen, Ch. (2011). Psychometric properties of three instruments to measure recovery. *Scandinavian Journal of Caring Sciences. 26*, 607-614.

Wilrycx, G.K.M.L., Croon, M.A., Van den Broek, A., & Van Nieuwenhuizen, Ch. (2012). Mental health recovery: Evaluation of a recovery-oriented training program. *The Scientific World Journal*. *Special issue "Mental Health, Recovery, and the Community*", 1-7: doi: 10.1100/2012/820846

Young, S.L., & Bullock, W.A. (2003). *The Mental Health Recovery Measure*. Available from the University of Toledo, Department of Psychology (918), Toledo, OH 43606-3390.

Young, S.L., & Ensing, D.S. (1999). Exploring recovery from the perspective of people with psychiatric disabilities. *Psychiatric Rehabilitation Journal, 22*, 219-231.

Chapter 6

General Discussion

General discussion

During the last decade, recovery has become a more mature concept in Western countries (Slade, Williams, Bird, Leamy & Le Boutillier, 2012a). The National Consensus Statement on Mental Health Recovery defined recovery as: '*a journey of healing and transformation enabling a person with a mental health problem to live a meaningful life in a community of his or her choice while striving to achieve his or her full potentials'* (SAMSHA, 2004). Recovery is focused on personal growth, hope and autonomy (Meehan, King & Beavis, 2008), as well as on learning to live with the negative consequences of the disease (Buckley-Walker, Crowe & Caputi, 2010). This vision of recovery is based on the patient's perspective (Jacobson & Greenley, 2001; Young & Ensing, 1999) and is seen as a continuing process of change which is not illness focused (Antony, 2004). Recovery involves the development of new meaning and purpose in one's life as one grows beyond the catastrophic effects of mental illness (Anthony, 1993). This new view on recovery is increasingly embraced by policymakers, mental healthcare organizations, and mental healthcare providers. Therefore, a progressive culture change is needed within society, within mental healthcare organizations, and within mental healthcare professionals. However, successful integration of this new recovery vision demands a new way of thinking about severe mental illness and recovery. The existing paternalistic, illness-oriented approach must transform into a more recovery-oriented, collaborative, autonomy-stimulating approach (Sowers, 2005) and the related services have to focus on the belief that mental healthcare users and providers are partners in treatment. The mental healthcare service has to be offered within a context of a collaborative relationship with patients (Borg & Kristiansen, 2004; Green, Polen, Janoff, Castleton, Wisdom, Vuckovic et al., 2008; Leamy, Bird, Le Boutellier, Williams & Slade, 2011; Russinova, Rogers & Ellison, 2006; Slade, 2009).

Nowadays, considerable discussion centers on what professionals can actually do in their day-to-day practice to support the unique process of recovery. Harrow and Jobe (2010) stated that, even without treatment, 50% of the patients who are diagnosed with a psychotic disorder experiences periods of recovery for a number of years. However, research shows that mental healthcare professionals can affect the recovery process in several ways, i.e. they can support and facilitate (Slade, 2009), but also hinder the difficult path of recovery (Onken, Dumont, Ridgeway, Dornan & Ralph, 2006). There is increasing evidence that items such as 'inspire hope' and having the ability to 'empower' the patient, are essential competencies of the professional to support or facilitate the recovery process (Lakeman, 2010; Le Boutellier, Leamy, Williams & Slade, 2011; Schrank, Bird, Rudnick & Slade, 2012; Van Gestel-Timmermans, Van den Bogaard, Brouwers, Herth & Van Nieuwenhuizen, 2010). To achieve a more recovery-oriented mental healthcare system, it is necessary to train people in this recovery-oriented care vision within each layer of the organization. This will hopefully create a new culture related to the treatment and recovery of severe mental illness.

The work presented in this thesis examines and evaluates the effectiveness of a recovery-oriented care training program for professionals on different outcomes. In this final chapter, the main findings of the study are summarized, study limitations are discussed, recommendations for future research and implications for clinical practice are addressed, and a brief overview is given of current recovery-oriented initiatives and developments in the Netherlands.

Main findings and reflections

Main findings

Instruments

In order to evaluate the recovery-oriented training program, which was developed especially for the GGz Breburg (Chapter 1), specific instruments were needed. In this thesis, four Dutch tools to measure different aspects of recovery are described in Chapters 2 and 3. Two of the four evaluated instruments were self-report questionnaires for professionals. The first examined their knowledge on recovery using the Recovery Knowledge Inventory (RKI; Bedregal, O'Connell & Davidson, 2006; Wilrycx, Croon, Van den Broek & Van Nieuwenhuizen, 2011) and the other investigated their attitudes towards recovery using the Recovery Attitudes Questionnaire (RAQ; Borkin, Steffen, Ensfiels, Krzton, Wishnick, Wilder et al., 2000; Wilrycx et al., 2011). The Dutch version of the RKI consists of 14 items and focuses on 'general knowledge of recovery' and is used to assess the professional's general knowledge about recovery over time. The Dutch version of the RAQ consists of 5 items and focuses on 'attitudes towards recovery'.

The other two instruments were self-report questionnaires for patients. One measured generic components of the mental health providers' recovery-promoting professional competence (RPRS; Russinova, Rogers & Ellison, 2006; Wilrycx et al., 2011) and the other measured the individual recovery process of the patient with severe mental illness with a questionnaire developed by Moradi and colleagues (MHRM; Moradi, Brouwers, Van den Boogaard & Van Nieuwenhuizen, 2007; see also Van Nieuwenhuizen, Wilrycx, Moradi & Brouwers, 2013; Young & Bullock, 2003). The Dutch version of the RPRS consists of two subscales. The first subscale reflects the recovery-related strategies, e.g. providing 'hope' and the ability to 'empower the patient' and the second subscale represents the provider's skills to enhance patient's self- acceptance. Scores on the RPRS indicate the professional's capability

to create a recovery-oriented environment and relationship which enable or facilitate the patient to recover.

The Dutch 30-item version of the MHRM (Van Nieuwenhuizen et al., 2013) consists of three subscales: 'self-empowerment'; 'learning & new potentials'; and 'spirituality'. Scores on the MHRM offer insight into the level of recovery of patients with severe mental illness. The MHRM can be used for evaluation studies on recovery and can play a role in stimulating policymakers to improve recovery-based care and mental health policy.

The evaluation study

The central aim in this thesis was to evaluate the effects of the recovery-oriented care training program on mental health professionals' attitudes and knowledge towards recovery. The results described in this thesis show that staff knowledge and attitudes regarding recovery from mental illness can improve with training (Chapter 4). Mental healthcare workers have a more positive attitude towards recovery in clinical practice after completing the two training sessions. The use of the two-group multiple intervention interrupted time-series design (a modification of the stepped-wedge trial design) has proven to be a useful and promising design to investigate different groups of subjects within behavioural science.

Besides the effects on behalf of the professionals, the effects of the recovery-oriented care training program for mental healthcare professionals on mental health consumer outcomes are given (Chapter 5). There was a significant change in scores over time for the second subscale of the MHRM: 'learning & new potentials'. Men scored higher than women on the subscales 'self-empowerment' and 'learning & new potentials'. This part of the thesis demonstrated that patients with severe mental illness can make a start with their recovery process while professionals were trained/are trained in the recovery vision. However, the results also show that the relationship with the professional is not experienced as a more

recovery-oriented one during and after the recovery-oriented training program for professionals.

Reflections

Recovery and recovery-oriented care

As Slade and colleagues (Slade et al., 2012a) mentioned in their article: '… *with age comes responsibility, an idea can initiate change, but that change must work in practice if it is to be sustained'*.

Nowadays, family organizations, mental healthcare services and policymakers are more aware of the importance of the new recovery principles and the main principles of recovery-oriented care. Something that started with an ideology has become a central topic within mental healthcare worldwide. However, the recovery concept is applied in different ways and some ambiguity exists about the nature of the concept. The definition of recovery currently considered to be most appropriate is a function of *who* is defining it (e.g. mental health consumers or researchers) and for *what purpose* it is defined (Silverstein and Bellack 2008).

At this moment several definitions on recovery are available. First of all, a distinction is made between 'clinical recovery' and 'recovery as a personal process'. Clinical recovery has to be seen as the absence of symptoms, indicating recovery from the illness itself. In order to come to a general understanding of the concept of recovery seen as a unique personal process, Slade et al. (2012a), after a synthesis of 97 papers from 13 different countries, demonstrated that recovery can be thought of as a journey which varies from one person to another. It can be seen as an interlinking set of processes, or can also be understood through the application of social cognition models of how the recovery journey itself varies over time and within individuals. They identified 13 characteristics of recovery with five over-arching recovery processes comprising Connectedness, Hope and optimism about the future, Identity, Meaning

in life and Empowerment (acronym CHIME) (Leamy et al., 2011; Slade, Adams & O'Hagan, 2012b). These CHIME recovery processes provide an empirical framework for recovery-oriented research. This framework provides mental healthcare professionals with a base on which to relate their clinical intervention, it can be applied by mental healthcare organizations for organizational policies, and it provides an empirical base to inform health insurance companies about recovery (Slade et al., 2012a). Furthermore, to implement this new recovery vision many studies on recovery-oriented competencies have been conducted.

The issue of staff attitudes and skills has also been the subject of several longitudinal studies (Onken, Dumont et al. 2002; Young, McCormick et al. 2002; Davidson, Borg et al. 2005; Crowe, Deane et al. 2006) These studies show that specific staff skills and behaviour contribute to the process of recovery, including effective communication, providing hope, appropriate self-disclosure, and a mutually equal and respectful partnership in treatment. According to some, however, it is less clear how to ensure that staff members actually demonstrate the competencies that support recovery (Silverstein and Bellack 2008). It is still unclear whether it is possible to train these skills, and which factors are most important to train to ensure proper treatment or care with regard to recovery. However, as we now know from the Refocus model (Slade, 2009); the actual implementation of recovery is much more complex than the way it was offered in the training program for professionals discussed in this thesis. The training program described here was based on only one part of the Refocus implementation model (namely, staff values, knowledge, and partnership) and lacked specific training at the work place. Continuing educational processes are recommended to establish new insights about recovery.

Recovery-related instruments

In view of the increasing importance of studying recovery and recovery-oriented care competencies, it is essential to use psychometrically sound instruments. At the start of this study, no instruments were available in the Netherlands to measure recovery-oriented competencies and the recovery-promoting relationship with the professional.

Chapters 2 and 3 of this thesis described the psychometric properties of four recovery-related instruments. Results showed that the originally proposed factor structure for the RKI, RAQ and RPRS did not yield an acceptable fit in any of the Dutch samples. There are four possible explanations for the differences in factor solutions between the original questionnaires and the Dutch versions. First, differences may arise due to translation of the items. Problems were encountered in the translation process, e.g. some items were simply difficult to interpret. Similar problems were reported in a psychometric evaluation of the Herth Hope Index-Dutch version (Van Gestel-Timmermans et al., 2010). Second, differences may arise due to cultural aspects. For example, the USA has a more multicultural society (our sample had only two persons with a non-Dutch background). Third, our study population was relatively homogeneous whereas the results of the original studies were influenced by the heterogeneity of their samples. In the present study, it was decided to distinguish between a specific (homogeneous) sample of mental health consumers and a professional sample. Finally, differences may arise due to the way mental healthcare is organized in the Netherlands. For example, Dutch society is generally not familiar with consumer-run projects, specific recovery principles, managed care, and working together with experts by experience.

Especially for the fourth instrument (the Dutch version of the MHRM) it is important to mention that the composition of the original subscales was not derived from a factor analysis carried out on a large pool of items, but was primarily based on substantive grounds (Cavelti, Kvrgic, Beck, Kossowsky & Vauth, 2012; Young & Bullock, 2003; Young &

Ensing, 1999). Therefore, an exploratory factor analysis was conducted on the MHRM on a substantial dataset, where an interpretable three-factor solution was found with a good to excellent internal consistency. Results also show that the MHRM scale 'self-empowerment' shows a medium to high correlation with nearly all subscales of the RAND and a low correlation with the RPRS. The correlations of the MHRM with the RAND and RPRS suggest that the MHRM measures something different than, for example, role limitations and is not specifically related to the recovery-promoting skills of professionals.

Overall, the Dutch instruments, especially developed for the evaluation study described in this thesis, are suitable for research and are appropriate tools to examine different aspects of recovery. These include knowledge on recovery, attitudes towards recovery among professionals, the recovery-promoting professional competence, and measuring the individual recovery process of patients.

The evaluation study

The results of the evaluation of the recovery-oriented care training program, described in Chapters 4 and 5 of this thesis, show that during the total course of the training program, expected changes were found in attitudes towards recovery. Similar findings were reported by Crowe et al. (2006), and Cleary and Dowling (2009), who found that mental health professionals had more favourable beliefs and more positive attitudes related to recovery during the course of the training program. A possible explanation for these positive results might be the way the intervention was given. The trainer was an expert by experience, who reflected on the quality of treatment received in the past, thereby generating self-reflection. According to Bandura (1986) self-reflection can indeed result in a change of attitudes. Because the professional undergoing training was confronted with reports of maltreatment stories, the educational program had an emotional as well as a learning impact. Secondly, the

use of understandable/appropriate language might contribute to the positive effect and the perceived behavioural control over the implementation. Furthermore, positive results were also found for the change in knowledge after Intervention A on knowledge about recovery. However, Intervention B (focusing mainly on attitude) had a negative effect on knowledge rather than the expected positive cumulative result. This negative result towards knowledge of recovery might be explained as follows. First, the program developers and the department managers did not look at the professionals' readiness to change. Before educating or training people, it is important that professionals are motivated to learn (Herzberg, 1987; Vroom, 1995). Second, the lack of rehearsal of knowledge about recovery during Intervention A might be responsible for the negative results after Intervention B. Studies show that rehearsal is crucial for the implementation of information and is essential for the integration of new knowledge in long-term memory (Atkinson & Shiffrin, 1986; Awn, Jonides, Smith, Buxton, Frank et al., 1999; Jonides, Lewis, Nee, Lustig, Burman & Moore, 2008). Third, the relatively high age of the professionals might play a role in this poor result, since younger and less experienced people are generally more eager to learn (Francke, Smit, De Veer & Mistean, 2008). Fourth, because the course was mandatory the extrinsic motivation to change might have been greater than the intrinsic motivation to learn (Vroom, 1995). Finally, as mentioned before, actual implementation of recovery is much more complex than how it was offered in the training program for professionals discussed in this thesis. The training program was based on only one part of the Refocus implementation model (i.e., staff values, knowledge and partnership) and lacked specific training at the work place.

The fifth chapter of this thesis examined the indirect effects of the recovery-oriented training program for professionals on mental health consumer's outcomes. Results show that patients can make a start with their individual recovery process during and after the recovery-oriented training program of professionals had been given. The positive changes in mean

scores over time on the subscales ‘self-empowerment’ and ‘learning & new potentials’ of the MHRM, indicated that professionals are able to empower patients and can stimulate patient’s autonomy. Results also show that men have better results on these subscales of the MHRM than women. Research on severe mental illnesses has shown that gender can indeed influence the recovery process. The following characteristics from a gender perspective might explain these results. First, men tend to fulfill the expected norm more than women (West & Zimmerman, 1987) and, second, independence is more highly valued by men than by women (Sajatovic, Jenkins, Strauss, Butt & Carpenter, 2005). Furthermore, the existence of role stereotyping behavior of the professional towards patients can promote the recovery process. Shön (2010) mentioned that the existence of different expectations placed on men and women by society may play an important role in the recovery process and, therefore, in the treatment of patients with severe mental illness. On the other hand, age failed to have a significant effect on any scale. Because younger persons are generally more eager to learn (Francke, Smit, De Veer & Mistiean, 2008), it was expected that younger patients would score better on the subscale ‘Learning & new potentials’ of the MHRM. However, this did not occur. In the present study, because no differences were found between younger and older patients, this means that age is not related to the moment that patients make a start with their recovery process. Nevertheless, the positive results on two subscales of the MHRM over time support the findings of Harrow and Jobe (2010) that (spontaneous) episodes of recovery can occur even without treatment.

Further results show that the relationship with the professional is not experienced as a more recovery-oriented one. Scores on the RPRS show that patients did not necessarily experience the relationship with the trained professional as facilitating and supportive towards their individual recovery process. It is also shown that no differences exist between men and women patients during and after the training program. Therefore, the results of this study do

not support a possible causal relationship between the behavior of the professional towards the patient (working alliance) and the individual recovery process. In contrast to the findings in the field of psychotherapy (Orlinsky, Ronnestad & Willutski, 2004) it is difficult to make a statement about the causal relationship between the working alliance and recovery of severe mental illness; changes in the alliance can predict recovery, but changes in recovery can also predicted the alliance (Hicks, Dean & Crowe, 2012).

Overall, the results show that attitudes and knowledge towards recovery of the professional can change by training and that patients can make a start with their recovery process while professionals were trained, or are being trained, in the recovery vision.

Study limitations and strengths

Limitations

The present study has some limitations that need to be discussed. First, the factor structures of the Dutch instruments differ from the original instruments. When the study presented in this thesis was being developed, validated instruments for use in the Netherlands were lacking. Therefore international available instruments about recovery had to be translated into Dutch. This thesis gives a description of the psychometric properties of the translated Dutch instruments. Still, more research is needed on the test-retest reliability of the RAQ, RKI, RPRS and MHRM in order to further establish the psychometric properties of the Dutch instruments.

Secondly, the original stepped-wedge trial design needed a modification due to the way the training program was organized. Epidemiological studies using this design have generally explored the long-term effect of just one intervention (Fairly, Levy, Rayner, Allardice, Costello, Thomas et al., 2003; Hall, Inskip, Loik, Day, O'Connor, Bosch et al, 1987; Hutson & Reid, 2004) whereas, in the present study, the effects of two interventions

over a two-year period were examined. For comparison purposes, only reference data of epidemiological studies were available for the modified stepped-wedge trial design. Data from psychosocial studies using this two-group multiple intervention interrupted time-series design unfortunately, were lacking. Therefore, it is necessary to do more research with this specific design in order to investigate the practical usefulness of this design within behavioural science.

Finally, the multiple measurement occasions made the research vulnerable, i.e. the six measurements occasions made it difficult to constantly maintain the cooperation/motivation of the professionals and patients. Hence, more longitudinal studies are needed in order to investigate the long-term effects of a recovery-oriented training program for professionals.

Strengths

The studies mentioned in this thesis also have a number of strengths. Firstly, to our knowledge, this is the first completed longitudinal study in the Netherlands to evaluate the effects of a recovery-oriented training program for professionals. The recovery-oriented care training program which is described in this thesis and the accompanied research program can be an example for the implementation of recovery in the Dutch mental health care.

Secondly, the study offered appropriate tools to examine various aspects of recovery, including: knowledge on recovery, attitudes towards recovery among professionals, the generic components of mental health providers' recovery-promoting professional competence, and the individual recovery process of patients with severe mental illness. These instruments can be useful for future research programs about recovery in the Netherlands.

Thirdly, the two-group multiple intervention interrupted time-series design is proven effective for use within behavioural science. This design enables to investigate the stepwise implementation of new ideas over time in a practical situation that does not always permit to

deliver the intervention simultaneously to all participants (Lilford, 1994); because of the stepwise implementation of the new recovery concept, professionals could maintain their routine practice. The modified stepped-wedge trial design is a within-subject design, which makes the inclusion of a 'no intervention' control group less urgent. These two specific advantages of the (modified) stepped-wedge trail design show that this design is a useful and promising design to investigate different groups of subjects within behavioural science.

Recommendations for future research

Several issues need to be elucidated in future research. For instance, more research is needed on the concept of recovery in order to arrive at an overall definition of recovery which is operational for research requirements within mental healthcare. It is also essential that the psychometric properties of the four instruments used in this thesis are tested in larger samples. In addition, in future studies a longer follow-up period is needed to assess how the effects of a recovery-oriented care training program persist over a longer period of time.

The evaluation study described in this thesis indicates that more research is needed on how patients can in fact be empowered by professionals; which competencies facilitate or hinder the difficult path of recovery (Borg & Kristianen, 2004; Lakeman, 2010, Onken et al. 2006), and how the working alliance actually influences the recovery process of patients with severe mental illnesses (Redko, Rapp, Elms, Snijdes & Carlson, 2007)? Furthermore, it is important to know how exactly gender influences the process of recovery (Schön, 2010).

Finally, all the current initiatives in the Netherlands to transform the Dutch mental healthcare to a more recovery-oriented mental health care should be accompanied by appropriate research. Currently, just a couple of projects are evaluated on their effectiveness. Therefore, we recommend creating a specialized research department ('Recovery and

recovery-oriented care'), together with a corresponding database, to cover all the initiatives on recovery taking place in the Netherlands.

Recommendations for practice 'A *new wine or just a new bottle? (Davidson, 2005)'*

Nationwide, although the recovery vision is increasingly being embraced, to successfully implement this vision within the Dutch mental healthcare system, several steps still need to be taken.

Policymakers, insurance companies, mental healthcare organizations and services need to become more familiar with the concept of recovery and recovery-oriented care. More responsibility is needed regarding the position, treatment and care of the severe mentally ill within society. More ambulatory treatment should be stimulated and facilitated in order to keep patients in their 'comfort zone' with their own family/friends so that those suffering from severe mental illness are more likely to recover.

It is important that more anti-stigma campaigns should be funded by the government to create a better culture within society towards patients who suffer from severe mental illness.

In order to come to a better understanding of recovery and to ascertain a better culture towards recovery, recovery-oriented care training programs have to be available within each layer of the mental healthcare organization. Slade offers a good example with his Refocus model and provides suggestions on how to consolidate the recovery vision within mental healthcare organizations and services. Another large program called imROC (acronym for Implementing Recovery through Organizational Change) started in 2011 in the UK and is now in its second phase; this project involves 29 national health services and is an important initiative.

To establish a better recovery culture within mental healthcare organizations and services, it is important to become more familiar with ‘experiential expertise’ and working with ‘experts by experience’.

The development of experiential expertise is a key element positively influencing the recovery process of severe mental illness. It is believed that sharing recovery experiences of severe mental illness can generate more power, and strengthen the patient’s position and their own recovery process (Bovenberg, Wilrycx, Bähler & Francken, 2010; Bovenberg, Wilrycx, Bähler & Francken, 2011; Corrigan & Penn, 2006; Van Gestel, Brouwers & Van Nieuwenhuizen, 2010). Patients who do recover, in both a personal and public sense, gain more power over their lives and their social position. The personal benefits of experiential involvement (‘expert by experience’) within mental healthcare can be therapeutic in itself, as it allows developing an identity other than the illness identity, and encourages greater social identity. Besides the individual advantages to develop experiential expertise, the ‘expert by experience’ is valuable for the mental healthcare organization itself. Because ‘experts by experience’ have in-depth knowledge about their own illness and the need for care, they reflect on the provided services from their personal viewpoint and can offer a different perspective on the illness and the care needed. This may improve the limited understanding of mental distress and might help bridge the gap between the professional and those with severe mental health problems (Boevink, 2005; Boevink, 2006; Davidson, Chinman, Sells & Rowe, 2006). Moreover, experiential expertise is valuable for society as well. Working with experts by experience within mental healthcare has de-stigmatizing power.

Many more ‘experts by experience’ are still needed within the current assertive community treatment (ACT and FACT) teams.

And finally, more peer-run courses, such as ‘Recovery is up to you’ (Van Gestel et al., 2010) are needed in the mental healthcare services to stimulate and to support the personal recovery process and the development of ‘experts by experience’.

Thus, there is still a lot to do in order to come to a general shift within the current mental health care to create a more recovery-oriented mental healthcare system in the Netherlands. The final part of this thesis provides a brief overview of some current ‘recovery-oriented’ developments in the Netherlands.

Current developments on recovery and recovery-oriented care in the Netherlands.

Professional-related initiatives

1. The recovery-oriented care training program described in this thesis is currently provided at different mental health organizations in the Netherlands (especially the first seminar). However, because the recovery vision has to be embraced by all professionals working in the field of psychiatry it is necessary to create commitment for implementation of the recovery vision on each layer of the organization. Therefore, the developers of the training program decided to develop a shorter version of the seminar for higher management, which is currently given in five mental healthcare organizations.
2. The Trimbos institute developed a practical guideline for implementing recovery-oriented care within mental healthcare organizations in the Netherlands (Hendriksen-Favier, Nijnens & Van Rooijen, 2012).
3. The SBWU in Utrecht developed a seminar called ‘How to cope with patients with severe mental illness’ for professionals. This course was developed by ‘experts by experience’ in collaboration with Dr. Jos Dröes (a psychiatrist specialized in recovery).

4. Of the many books on the topic of recovery the following was published in March 2012: Recovery-oriented care: Treatment, rehabilitation and experiential expertise as three supportive factors for recovery from severe mental illness (Dröes & Witsenburg, 2012).
5. With the aim to create a new culture towards severe mental illnesses in the Netherlands, a SIRE anti-stigma campaign was launched in June 2013. This campaign was accompanied by the installation of a telephone line especially for 'healthy' persons to help, guide and give advice to persons who are personally involved with patients who suffer from a severe mental illness. In this case, the person giving advice is an 'expert by experience'.
6. The University of Tilburg is developing a new Dutch Recovery tool for Routine Outcome Monitoring purposes (Van Gestel-Timmermans, Van Weeghel, Van Nieuwenhuizen & Projectgroep Nationale Herstelschaal, 2013) to measure the individual recovery process of patients with severe mental illness.

Patient-related initiatives

1. At this moment, there are high expectations of the Wellness Recovery Action Plan (WRAP); this is an illness self-management intervention involving education and peer support. Research has confirmed the importance of WRAP as part of a group of evidence-based, recovery-oriented interventions (Cook, Copeland, Floyd, Jonikas, Hamilton, Razzano et al., 2012; Fukui, Starnino, Mariscal, Davidson, Cook, Rapp & Gowdy, 2011). It is a training given by 'experts by experience' for patients with severe mental illness and will soon be given by HEE (Acronym for Herstel, Empowerment, Ervaringsdeskundigheid; Recovery, Empowerment and Experiential Expertise) members in the Netherlands.

2. In the Netherlands many peer-run courses have been developed and are now well established.

3. The LIVE (Acronym for Landelijk steunpunt Inzet Van Ervaringsdeskundigheid in de GGz; National service implementing experiential expertise within mental health care) project was developed by the Trimbos institute in Utrecht and by Phrenos (Center of expertise for treatment, rehabilitation and recovery of severe mental illness). This is a two-year project conducted to formally implement experiential expertise within the current mental healthcare system.

4. A large project on the transition of experiential expertise in mental healthcare organizations has been developed in Eindhoven and in the GGz Breburg.

5. The self-help book 'Pathways to Recovery. A strengths recovery self-help workbook' by Ridgeway, et al. (2002) has been translated into Dutch by Anna Livestro and published by the mental health organization 'Noord Holland Noord'.

In conclusion, this thesis has shown that the recovery-oriented training program for professionals was effective in improving attitudes and knowledge about recovery among professionals. It also shows that patients who suffer from severe mental illnesses can make a start with their recovery process. However, for successful implementation of recovery and the recovery principles, a cultural shift towards recovery is still needed. The existing paternalistic, illness-oriented approach needs to transform to a more recovery-oriented, collaborative, autonomy-stimulating approach (Sowers, 2005). Moreover, the services provided need to focus on the belief that mental healthcare users and providers are partners in treatment. The mental healthcare service should be offered within a context of a collaborative reciprocal relationship with patients (Borg & Kristiansen, 2004; Green et al., 2008; Leamy et al., 2011;

Slade, 2009; Russinova, Rogers & Ellison, 2006). Hence, recovery-oriented care principles can be implemented within the current mental health care, where recovery-oriented care needs to be seen as *" ... a fresh wine in a nice client-friendly, professionally-made, new bottle".*

References

Anthony, W.A. (1993). Recovery from mental illness: The guiding vision of the mental health service system in the 1990s. *Psychosocial Rehabilitation Journal, 16,* 11-23.

Anthony, W.A. (2004). Bridging the gap between values and practice. *Psychiatric Rehabilitation Journal, 28,* 105-106.

Atkinson, R.C., & R.M. Shiffrin, R.M. (1968). Human memory: A proposed system and its control process. In K.W. Spence & J.T. Spence (Eds), *The psychology of learning and motivation,* vol. 2, (pp 89-195), New York: Academic Press.

Awh, E., Jonides, J., Smith, E.E., Buxton, R.B., Frank, L.R., Love, T., Wong, E.C., & Gmeindl, L. (1999). Rehearsal in spatial working memory: Evidence from neuroimaging, *Psychological Science, 10,* 433-437.

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*, Englewood Cliffs, N.J., Prentice-Hall.

Bedregal, L. E., O'Conell, M., & Davidson, L. (2006). The Recovery Knowledge Inventory. *Psychiatric Rehabilitation Journal, 30,* 96-103.

Boevink, W. & Dröes, J. (2005). Herstelwerk van mensen met een psychische beperking en wat kunnen hulpverleners doen om hen te ondersteunen? [Recovery of severe mental illness and the contribution of mental health care providers to facilitate and support recovery.] *Psychopraxis, 7,* 11-16.

Boevink, W. (2005). Herstel, empowerment en ervaringsdeskundigheid. [Recovery, empowerment and experiential expertise.] *Passage, 14,* 7-18.

Boevink, W. (2006). Verhalen van herstel; samen werken met ervaringskennis in de geestelijke gezondheidszorg. [Stories of recovery; working together with experiential knowledge in mental health care.] Utrecht, the Netherlands, Trimbos Instituut.

Borg, M., & Kristiansen, K. (2004). Recovery oriented professionals: Helping relationships in mental health services. *Journal of Mental Health, 13,* 493-505.

Brown, C., & Lilford, R.J. (2006). The Stepped Wedge Trial Design: A Systematic Review. *BMC Medical Research Methodology, 6,* 54-67.

Borkin J.B., Steffen. J.R., Ensfield, J.J., Krzton, K., Wishnick, H., Wilder, K., & Yangabar, N. (2000). Recovery Attitudes Questionnaire: Development and Evaluation. *Psychiatric Rehabilitation Journal, 24,* 95-202.

Bovenberg, F., Wilrycx, G., Bähler, M., & Francken, G. (2010). Ervaringsdeskundigheid: de stand van zaken. [Experiential expertise: An update]. *Psychologisch Maandblad voor Geestelijke Gezondheid en Verslaving, 8,* 38-39.

Bovenberg, F., Wilrycx,G., Bähler, M., & Francken, G. (2011). Inzetten van ervaringsdeskundigheid: pleidooi voor meer ervaringsdeskundigen in topfuncties. [Working with experiential expertise: Statement for more experts by experience within the higher management]. *Tijdschrift voor Rehabilitatie, 1,* 45-54.

Buckley-Walker, K., Crowe, T., & Caputi, P. (2010). Exploring identity within the recovery process of people with serious mental illnesses. *Psychiatric Rehabilitation Journal, 33,* 219-227.

Cavelti, M., Kvrgic, S., Beck, E.M., Kossowsky, J., & Vauth, R. (2012). Assessing recovery from schizophrenia as an individual process. A review of self-report instruments. *European Psychiatry, 27,* 19-32.

Cleary, A., & Dowling, M. (2009). Knowledge and attitudes of mental health professionals in Ireland to the concept of recovery in mental health: A questionnaire survey. *Journal of Psychiatric Mental Health Nursing, 16,* 539-545.

Corrigan, P.W., & Penn, D.L. (1999). Lessons from social psychology on discrediting psychiatric stigma. *The American Psychologist, 54,* 765-776.

Cook, J.A., Copeland, M.E., Floyd, C.B., Jonikas, J.A., Hamilton, M.M., Razzano, L., … Boyd, S. (2012). A randomized controlled trial of effects of Wellness Recovery Action Planning on depression, anxiety, and recovery. *Psychiatric Services, 63,* 541-547.

Crowe, T. P., Deane, F.P., Oades, L.G., Caputi, P., & Morland, K.G. (2006). Effectiveness of a collaborative recovery training program in Australia in promoting positive views about recovery. *Psychiatric Services, 57,* 1497-1500.

Davidson, L., Chinman, M., Sells, D., & Rowe, M. (2006). Peer support among adults with serious mental illness: A report from the field. *Schizophrenia Bulletin, 34*, 443-450.

Davidson, L., Borg, M., Marin, I., Topor, A., Mezzina, R., & Sells, D. (2005). Processes of recovery in serious mental illness: Findings from a multinational study. *American Journal of Psychiatric Rehabilitation, 8*, 177 - 201.

Davis, L.W., & Lysaker, P.H. (2007). Therapeutic alliance and improvements in work performance over time in patients with schizophrenia. *Journal of Nervous and Mental Disease, 195*, 353-357.

Dröes, J., & Witsenburg, C. (2012). *Herstelondersteunende zorg. Behandeling, rehabilitatie en ervaringsdeskundigheid als hulp bij herstel van psychische aandoeningen*. [Recovery-oriented care. Treatment, rehabilitation and experiential expertise as help for recovery of mental illnesses.] Passagecahier, Amsterdam, the Netherlands; Uitgeverij SWP.

Fairley, C.K., Levy, R., Rayner, C.R., Allardice, K., Costello, K.C., Thomas, C., …Mijch, A. (2003). Randomized trial of an adherence programme for clients with HIV. *International Journal of STD & AIDS, 14*, 805-809.

Fukui, S., Starnino, V.R., Mariscal, S., Davidson, L.J., Cook, K., Rapp, C.A., & Elizabeth, A. (2011). Effect of Wellness Recovery Action Plan (WRAP) participation on psychiatric symptoms, sense of hope, and recovery. *Psychiatric Rehabilitation Journal, 34*, 214-222.

Francke, A.L., Smit, M.C., De Veer, A.F., & Mistiean, P. (2008). Factors influencing the

implementation of clinical guidelines for health care professionals: A systematic meta-review. *BMC Medical Information and Decision Making, 8,* 38-44.

Green, C.A., Polen, M.R., Janoff, S.L., Castleton, D.K., Wisdom, J.P., Vuckovic, N., ... Onken, S.L. (2008). Understanding how clinician-patient relationships and relational continuity of care affect recovery from serious mental illness: STARS study results. *Psychiatric Rehabilitation Journal, 32,* 9-22.

Hall, A.J., Inskip, H.M., Loik, F., Day, N.E., O'Connor, G., Bosch, X., … Coursaget, P. (1987). The Gambia hepatitis intervention study. *Cancer Research Journal, 47,* 5782-5787.

Harrow, M., & Jobe, T.H. (2007). Factors involved in outcome and recovery in schizophrenia patients not on anti psychotic medications: A 15 years multi-follow up study. *Journal of Nervous and Mental Disorders, 195,* 406-414.

Hendriksen-Favier, A., Nijnens, K., & Van Rooijen, S. (2012). Handreiking voor de implementatie van herstelondersteunende zorg in de GGz. [Guidelines for the implementation of recovery-oriented care.] Utrecht, the Netherlands; Trimbos Instituut.

Herzberg, F.I. (1987). One more time, how do you motivate employees? *Harvard Business Review, 65,* 109-120.

Hicks, A.L., Deane, F.P., & Crowe, T.P. (2012). Change in working alliance and recovery in severe mental illness: An exploratory study. *Journal of Mental Health, 21,* 127-134.

Hobbs, M., & Baker, M. (2012). Hope for recovery - how clinicians may facilitate this in

their work. *Journal of Mental Health, 21*, 144-153.

Hugo, M. (2001). Mental health professionals' attitudes towards people who have experienced a mental health disorder. *Journal of Psychiatric Mental Health Nursing, 8,* 419-425.

Hutson, A.D., & Reid, M.E. (2004). The utility of partial cross-over designs in early phase randomized prevention trials. *Control Clinical Trials, 25,* 493-501.

ImRoc; Implementation of recovery- oriented care. (2011). Retrieved from https:// www.imroc.org/about-us/

Jacobson, N., & Greenley, D. (2001). What is recovery? A conceptual model and explication. *Psychiatric Services, 52,* 482-485.

Jonides, J., Lewis, R.L., Nee, D.E., Lustig, C.A., Berman, M.G., & Moore, K.S. (2008). The mind and brain of short-term memory. *Annual Review of Psychology, 59,* 193- 224.

Lakeman, R. (2010). Mental health recovery competencies for mental health workers: A Delphi study. *Journal of Mental Health, 19*, 62-74.

Le Boutillier, C., Leamy, M., Bird, V.J., Davidson, L., Williams, J., & Slade, M. (2011). What does recovery mean in practice? A qualitative analysis of international recovery-oriented practice guidance. *Psychiatric Services, 62*, 1470-1476.

Leamy, M., Bird, V., Le Boutillier, C., Williams, J., & Slade, M. (2011). A conceptual framework for personal recovery in mental health: Systematic review and narrative synthesis. *British Journal of Psychiatry, 199,* 445-452.

Lilford, R. (1994). Formal measurement of clinical uncertainty: Prelude to a trial in perinatal medicine. *British Medical Journal, 308,* 111-112.

Meehan, T.J., King, R.J., Beavis, P.H., & Robinson, J.D. (2008). Recovery based practice; do we know what we mean or mean what we know? *Australian and New Zealand Journal of Psychiatry, 42,* 177-182.

New Zealand Mental Health Commission (2001). *Recovery competencies for New Zealand mental health workers,* Wellington, New Zealand: Mental Health Commission.

Onken, S.J., Dumont, J.M., Ridgeway, P., Dornan, D.H., & Ralph, R.O. (2006). *Mental health recovery: What helps and what hinders?* A national research project for the development of recovery facilitating system performance indicators. International Recovery Perspectives: Implications-Innovations-Implementation, November 16-17, Ontario: University of Toronto.

Orlinsky, D.E., Ronnestad, M.H., & Willutski, U. (2004). Fifty Years of Psychotherapy Process-Outcome Research: Continuity and Change. In Lambert (Ed), Bergin and Garfields *Handbook of Psychotherapy and Behaviour change* (pp.307-389). Fifth edition. New York: Wiley & Sons.

Redko, C.R.C., Rapp, R.C., Elms,C., Snijdes, M., & Carlson, R.G. (2007). Understanding the working alliance between persons with substance abuse problems and strengths based case managers. *Journal of Psychoactive Drugs, 39,* 241-250.

Ridgeway, P., McDiarmid, D., Davidson, L., Bayes, J., & Ratzlaff, S. (2002). *Pathway to recovery: A strengths recovery self-help workbook.* School of Social Welfare, Kansas, USA: University of Kansas.

Russinova, Z., Rogers, S.E. & Ellison, M.L. (2006). *Recovery Promoting Relationship Scale.* Centre of Rehabilitation Sciences, Boston, USA: Boston University.

Sajatovic, M., Jenkins, J., Strauss, M., Butt, Z., & Carpenter, E. (2005). Gender identity and implications for recovery among men and women with schizophrenia. *Psychiatric Services, 1,* 96-98.

Schrank, B., Bird, V., Rudnick, A., & Slade, M. (2012). Determinants, self-management strategies and interventions for hope in people with mental disorders: systematic search and narrative review. *Social Science and Medicine, 74,* 554-564.

Substance Abuse and Mental Health Service Administration (SAMSHA), (2004). National Consensus Statement on Mental Health Recovery. Retrieved from http://dounload.ncadi.samhsa.gov/ken/pdf/ SMA05-4129/trifold.pdf

Schön, U.K. (2010). Recovery from severe mental illness, a gender perspective. *Scandinavian Journal of Caring Sciences, 24*, 557-564.

Schön, U.K. , Denhov, A., & Topor, A. (2009). Social relationships as a decisive factor in recovery from severe mental illness. *International Journal of Social Psychiatry, 55*, 336-347.

Silverstein, S.M., & Bellack, A.S. (2008). A scientific agenda for the concept of recovery as it applies to schizophrenia. *Clinical Psychology Review, 28*, 1108-1124.

Slade, M. (2009). *100 ways to support recovery: A guide to mental health professionals. Rethink recovery series: volume 1.* London, United Kingdom: Rethink.

Slade, M., Williams, J., Bird, V., Leamy, M., & Le Boutillier, C. (2012a). Recovery grows up, *Journal of Mental Health, 21*, 99-104.

Slade, M., Adams, N., & O'Hagan, M. (2012b). Recovery: past progress and future challenges, *International Review of Psychiatry, 24*, 1-4.

Sowers, W. (2005). Transforming systems of care: the American Association of Community Psychiatrists Guidelines for recovery oriented Services. *Community Mental Health Journal, 41*, 757-774.

Van Gestel-Timmermans, H., Van den Bogaard. J., Brouwers, E., & Van Nieuwenhuizen,Ch. (2010). Hope as a determinant of mental health recovery: a psychometric evaluation of the Herth Hope Index-Dutch version. *Scandinavian Journal of Caring Sciences, 24*, 67-74.

Van Gestel-Timmermans, J.A.W.M., Brouwers, E.P.M., & Van Nieuwenhuizen, Ch. (2010). Recovery is Up to You, a peer run course. Psychiatric Services, *61,* 944-945.

Van Gestel-Timmermans, J.A.W.M., Van Weeghel, J., Van Nieuwenhuizen, Ch. & Projectgroep Nationale Herstelschaal (2013). *Verslag project 'Ontwikkeling Nationale Herstelschaal*.' Tilburg: Tilburg University in opdracht van Stichting Beschermende Woonvormen Utrecht (SBWU).

Van Nieuwenhuizen, Ch., Wilrycx, G., Moradi, M., & Brouwers, E.P.M. (2013). Psychometric evaluation of the Dutch version of the Mental Health Recovery Measure (MHRM). *International Journal of Social Psychiatry, 58,* 521- 531.

Vroom, H. (1995). *Work and Motivation* (Rev. ed.). San Francisco, CA: Jossey-Bass Classics.

West, C., & Zimmerman, D.H. (1987). Doing gender. *Gender & Society,1,* 125-51.

Wilrycx, G.K.M.L., Croon, M.A., Van den Broek, A., & Van Nieuwenhuizen, Ch. (2011). Psychometric properties of three instruments to measure recovery. *Scandinavian Journal of Caring Sciences*. *26*, 607-614.

Wilrycx, G.K.M.L., Croon, M.A., Van den Broek, A., & Van Nieuwenhuizen, Ch. (2012). Mental health recovery: Evaluation of a recovery-oriented training program. *The Scientific World Journal*. *Special issue "Mental Health, Recovery, and the Community*", 1-7: doi: 10.1100/2012/820846

Young, H.M., McCormick, W.M., & Vitaliano, P.P. (2002). Attitudes Toward Community-Based Services Among Japanese American Families. *The Gerontologist, 42*, 814-825.

Young, S.L., & Bullock, W.A. (2003). *The Mental Health Recovery Measure*. Available from the University of Toledo, Department of Psychology (918), Toledo, OH 43606-3390.

Young, S.L., & Ensing, D.S. (1999). Exploring recovery from the perspective of people with psychiatric disabilities. *Psychiatric Rehabilitation Journal, 22,* 219-231.

Summary

Summary

With the increasing focus on recovery from severe mental illnesses, recovery has become a major concept in mental health organisations and psychiatric rehabilitation programs. The concept of recovery is often associated with somatic diseases and the way people can recover from a physical illness. The traditional medical-oriented model is illness-focused, in which the disappearance of symptoms is seen as conditional. The new concept of recovery is not illness focused and the loss of symptoms is not regarded as a condition for recovery. Recovery these days is seen as a subjective process of the individual him/herself where recovery is often described as '*finding a way of living a satisfying, hopeful, and contributing life, beyond the illness*.'

Nowadays, many mental health organisations are developing plans to change their system of care in accordance with recovery-oriented principles. An increasing number of professionals believe that the mental healthcare system needs to focus on the individual recovery process of patients with a severe mental illness. Moreover, that mental health care has the responsibility to create a facilitating environment where patients are able to recover from their illness. It appears that within the current mental healthcare, recovery-oriented care demands a fundamental shift in the recovery philosophy. Therefore, those supporting the recovery movement emphasize the importance of educating mental health professionals.

This thesis describes the evaluation of a recovery-oriented training program for professionals**.** The training program is part of a large recovery-oriented care project; the training program for professionals was accompanied with a longitudinal research program which is described in this thesis. The recovery-oriented care training program was developed by two rehabilitation organisations (Rehabilitation '92 and STORM rehabilitation) and one peer-support organisation HEE (Acronym for Herstel, Empowerment en Ervaringsdeskundigheid;

Recovery, Empowerment and Experiential expertise). The ‘Recovery and recovery-oriented care’ project was developed especially for the GGzBreburg, more specifically for ‘Impact’ the department for treatment of patients with severe mental illnesses which is located in Breda and Etten-Leur. The main goal of the project was to create and promote a new culture towards recovery from severe mental illness. The work presented in this thesis examines and evaluates the effectiveness of a recovery-oriented care training program for professionals on different outcomes.

Aims of the thesis

The work in the present thesis has the following aims:

1. To give insight in the development of a recovery-oriented care training program for professionals working with patients with severe mental health problems in the Netherlands.
2. To evaluate the psychometric properties of the following questionnaires: the Dutch version of the Recovery Attitude Questionnaire (RAQ-7) and the Recovery Knowledge Inventory (RKI) in a sample of mental health care professionals working with patients with severe mental illnesses and to evaluate the Dutch version of the Recovery Promoting Relationship Scale (RPRS) in a sample of patients with severe mental illnesses.
3. To evaluate the psychometric properties of the Mental Health Recovery Measure (MHRM) in a sample of patients with severe mental health illnesses.
4. To evaluate the effects of the recovery- oriented care training program for mental health care professionals in the Netherlands.

5. To evaluate the effects of the recovery- oriented care training program for mental health care professionals on mental health consumer's outcomes.

Chapter 1 describes the development of a recovery-oriented care training program for professionals which was developed by two rehabilitation organisations (Rehabilitation '92 and STORM rehabilitation) and one peer-support organisation HEE. The main goal of the training program was to create and promote a new culture towards recovery from severe mental illness. Furthermore, this first chapter gives a short description about possible facilitators for the individual recovery process like there are: personal characteristics, personal experiences and live events of an individual and what others can do and offer to create a facilitating environment for the individual to recover. A brief description of the two training seminars is given.

Chapter 2 deals with the evaluation of the psychometric properties of the Dutch version of the Recovery Attitude Questionnaire (RAQ), the Recovery Knowledge inventory (RKI) and the Recovery Promoting relationship Scale (RPRS) for possible application in the Netherlands. After a strict forward-backward translation procedure and a pilot study in which the content validity and the comprehensibility of the questionnaires were tested, the RAQ and the RKI were investigated among 210 mental health professionals. The RPRS was administered to 142 mental health care patients. The factor structure, reliability and internal consistency for the Dutch versions were examined using the same analysis strategy. First, each questionnaire was submitted to a confirmatory factor analysis based on the factorial structure proposed by the original developers of the questionnaire. Based on factor analyses, subscales were formed for each questionnaire and the internal consistency (Cronbach's alpha) for the Dutch versions was assessed. The presented study in this chapter, contributes to the

development of three instruments related to recovery to be used in the Netherlands. The psychometric properties of the translated instruments were established. The three instruments are appropriate tools to examine different aspects of recovery, including knowledge on recovery, attitudes towards recovery among professionals, and to measure generic components of mental health providers' recovery-promoting professional competence.

Chapter 3 focuses on the evaluation of the Mental Health Recovery Measure (MHRM). In the current study, the psychometric properties of the Dutch version of the MHRM are explored. Data were available of 212 patients. Seventy patients completed the MHRM, the Hope Herth Index (HHI) and the RAND-36. One hundred and forty-two patients filled in the MHRM and RPRS. An exploratory factor analysis was conducted in which the number of factors to retain was based on visual inspection of Cattell's scree plot and on the results of a parallel analysis. On the basis of the factor analysis, subscales were formed for the MHRM and the Cronbach's alphas were assessed. The construct validity was assessed by computing the intercorrelations of the MHRM, HHI, RAND-36 and RPRS. The factors of the MHRM correspond with the consumer literature on recovery. The Dutch version of the MHRM is a suitable instrument for evaluation studies and can play a role in stimulating policymakers to improve recovery-based care and mental health policy.

Chapter 4 explores the effects of the recovery-oriented training program for mental health care professionals in the Netherlands. The study uses a two group multiple intervention interrupted time-series design which is a variant of the stepped-wedge trial design. It is a longitudinal repeated-measures design where a sample is randomly divided into subsamples. These subsamples are observed at all time points but differ regarding the moment at which the experimental intervention is implemented. Using data from a longitudinal study of recovery-

six measurement occasions took place - changes in knowledge and attitudes of 210 mental health professionals towards recovery were explored using the Recovery Attitude Questionnaire and the Recovery Knowledge Inventory. Data were collected at six moments: T0 to T5. The study shows that staff knowledge and attitudes regarding recovery from mental illness can improve with training. Mental healthcare workers have more positive attitudes towards recovery in clinical practice after completing the two training sessions. Furthermore, the modification of the stepped-wedge trial design - which resulted in a two group multiple intervention interrupted time-series design - has proved to be a useful and promising design to investigate different groups of subjects within behavioural science. This study offers insight into the usefulness of this modified design. Future research should provide more evidence about the practical usefulness of this modified design, especially for disseminating evidence-based practices within mental health care.

Chapter 5 gives an evaluation of the recovery-oriented care training program for mental health care professionals on mental health consumer outcomes. This study investigates whether the training program for professionals had a positive influence on the patient's experienced hopefulness, self empowerment and learning and new potentials. The study also focuses on whether individual characteristics were related to the outcomes of the study and evaluates the influence of the training program on the relationship with the patients, specifically if the relationship is experienced as more recovery- oriented. The Mental Health Recovery Measure (MHRM) and the Recovery Promoting relationship Scale (RPRS) were administered by 142 patients. Data were collected at six moments. Separate analyses were carried out for the three MHRM and the two RPRS subscales. Data were analyzed by means of the software package AMOS for structural equation modeling. First, the five scale means were computed at each measurement occasion. Next, two series of regression analyses were

carried out; a first series of analyses tried to ascertain whether gender and age have significances effect on scores on the MHRM and the RPRS, whereas the second series aimed at detecting a systematic trend in the average scale response of the MHRM and RPRS. Scores changed significantly over time for the second subscale of the MHRM; learning & new potentials. Significant effects were found for gender for scores on the two of the three subscales of the MHRM. Men score higher than women on the subscales self empowerment and learning & new potentials. Age had no effect on the MHRM and RPRS. No significant effects were found for scores on the RPRS.

Finally, in **Chapter 6,** the general discussion, the main findings of this thesis are summarized and discussed, followed by the study limitations and strengths as well as the implications of the findings for future research and clinical practice. Future research should focus on the concept of recovery in order to arrive at an overall definition of recovery which is operational for research requirements. More evidence is needed about the psychometric properties of the Dutch instruments used in this study. In addition, more longitudinal studies are needed to investigate the long-term effects of recovery-oriented care training programs in the Netherlands. Also further research is needed pertaining to which competencies of professionals can facilitate or hinder the difficult path of recovery.

Furthermore, recovery-oriented care training programs have to be available within each layer of the mental health care organization and more responsibility is needed regarding the position, treatment and care of the severe mentally ill within society. Society and mental health care organizations have to become more familiar with the position of experts by experience and the advantages of experiential expertise. This final chapter ends with a short overview of some current developments about recovery and recovery-oriented care in the Netherlands.

Samenvatting

Samenvatting

In de afgelopen dertig jaar heeft de herstelbeweging internationaal en nationaal steeds meer terrein gewonnen wanneer het gaat over een goede behandeling en begeleiding voor cliënten met langdurige psychische problematiek. Het begrip 'herstel' roept echter ook veel discussie en verwarring op. Binnen de medische somatische zorg refereert herstel vaak aan de terugkeer naar het niveau van functioneren van voor de ziekte en het verdwijnen van symptomen. Het begrip herstel, zoals hier in dit proefschrift wordt gebruikt, heeft echter een andere betekenis. Anthony heeft in 1993 de volgende definitie van herstel gegeven: 'Herstel is een zeer persoonlijk, uniek proces waarbij iemand zijn of haar attitudes, waarden, gevoelens, vaardigheden en/of rollen verandert. Het is een manier om een bevredigend, hoopvol en zinvol leven te leiden met de beperkingen van de aandoening. Herstel is nieuwe inhoud geven aan het leven en een nieuwe richting, voorbij de (soms) rampzalige gevolgen van de aandoening.' Ondanks het vele gebruik van deze definitie van herstel wordt het individueel georiënteerd herstelconcept nog op verschillende manieren gebruikt. Hierdoor is er veel onduidelijkheid rondom de aard van het concept en de wetenschappelijke waarde ervan. In een poging het begrip te verduidelijken, wordt vooral het verschil benadrukt tussen de objectieve en subjectieve criteria voor herstel. Medici en medisch-psychiatrisch georiënteerde professionals zijn voornamelijk geïnteresseerd in definities die de objectieve uitkomstcriteria voor herstel weergeven waaronder (a) mate van aanwezige positieve en negatieve symptomen van bijvoorbeeld schizofrenie, (b) mate van psychosociaal functioneren en (c) de bestaande duur van de combinatie van criteria a en b. Hier ligt de nadruk dus vooral op afname van symptomatologie.

De herstelbeweging, cliënt- en familieorganisaties hebben kritiek op deze objectivering van herstel omdat op deze wijze de mens achter de diagnose onvoldoende tot zijn recht komt. Zij prefereren de subjectievere benadering van herstel die voornamelijk

uitgaat van kwaliteit van leven, mate van hoop op herstel en het trachten terug te vinden van een nieuwe identiteit ‘voorbij’ de aandoening. De nadruk ligt hier op het unieke proces van de cliënt zelf. Met andere woorden: herstel refereert aan de manier waarop een persoon met ernstige psychiatrische problematiek zijn of haar problematiek ervaart en er mee omgaat teneinde zijn/haar plaats en maatschappelijke positie in het leven terug te vinden. Op deze manier gedefinieerd, is herstel een relatief nieuw begrip waarvoor nog weinig wetenschappelijk bewijs voorhanden is. De herstelbeweging opent daarmee de ogen voor een andere opvatting over het ‘genezen’ en/of ‘herstellen’ van ernstige psychische/psychiatrische problematiek.

In dit proefschrift wordt stilgestaan bij de bestaande definities van herstel, de verschillende fasen van herstel en de ontwikkeling van een herstelondersteunend trainingsprogramma voor professionals. Daarnaast worden vier vragenlijsten rondom herstel geëvalueerd (de Recovery Attitude questionnaire; RAQ, de Recovery Knowledge Inventory; RKI, de Recovery Promoting Relationship Scale; RPRS en de Mental Health Recovery Measure; MHRM) en worden de effecten van het trainingsprogramma op het niveau van de professional en op cliënt niveau beschreven. In het laatste hoofdstuk volgt een globale discussie over de algemene bevindingen van het onderzoek dat is beschreven in dit proefschrift. Naar aanleiding van de bevindingen uit dit onderzoek worden aanbevelingen gedaan voor verder onderzoek rondom herstel en herstelgeoriënteerde/herstelondersteunende zorg. Praktijkgerichte aanbevelingen zijn gedaan om de behandeling en de begeleiding van mensen met ernstige psychiatrische problematiek meer herstelondersteunend te maken. Verder wordt stilgestaan bij enkele nationale en internationale ontwikkelingen op gebied van herstel.

Het voornaamste doel van dit proefschrift is om de effecten te onderzoeken van de training herstelondersteunende zorg voor professionals binnen de GGz Breburg. Dit effect wordt onderzocht op het niveau van de professional ten aanzien van de attitude en kennis van herstel. Verder wordt onderzocht of de training herstelondersteunende zorg een indirect effect heeft op het herstelproces van de cliënt en op de relatie met de professional.

Doelen van het proefschrift.

1. Inzicht geven in de ontwikkeling van het trainingsprogramma herstelondersteunende zorg voor professionals binnen de GGzBreburg.

2. Het evalueren van de psychometrische kwaliteiten van de Nederlandse versie van drie herstelgeoriënteerde instrumenten namelijk de Recovery Attitude Questionnaire, de Recovery Knowledge Inventory, dit zijn vragenlijsten voor professionals en de Recovery Promoting Relationship Scale, een vragenlijst voor cliënten.

3. Het evalueren van de psychometrische kwaliteiten van de Nederlandse versie van de Mental Health Recovery Measure, een vragenlijst voor cliënten.

4. Het evalueren van de effecten van de training herstelondersteunende zorg voor professionals door gebruik te maken van een ‘two group multiple intervention interrupted time serie design’ wat een variant is van het stepped- wedge trial design.

5. Het evalueren van de effecten op cliëntniveau van het trainingsprogramma herstelondersteunende zorg voor professionals.

Het hier beschreven longitudinale onderzoek maakt gebruik van kwantitatieve onderzoeksmethoden. In totaal hebben er zes meetmomenten plaatsgevonden (T0 t/m T5), en is gebruik gemaakt van vragenlijsten voor zowel professionals als voor cliënten.

In **hoofdstuk** 1 wordt de ontwikkeling van het trainingsprogramma herstelondersteunende zorg voor professionals, werkzaam binnen de chronische psychiatrie, beschreven. Dit trainingsprogramma is onderdeel van een groter project 'herstelondersteunende zorg' binnen GGz Breburg. Het trainingsprogramma is ontwikkeld voor 'Impact', het netwerk voor de behandeling en begeleiding van langdurige psychische problematiek binnen GGz Breburg. Het is tot stand gekomen door de samenwerking met HEE (Herstel, Empowerment en Ervaringsdeskundigheid) en twee grote rehabilitatie organisaties; Stichting Rehabilitatie '92 en Storm Rehabilitatie. Het doel van het trainingsprogramma is een cultuuromslag te bewerkstelligen ten aanzien van herstel van langdurige psychische problemen. Verder wordt er in dit eerste hoofdstuk een korte beschrijving gegeven van (interne) persoonlijke kenmerken die invloed kunnen hebben op de manier waarop een cliënt hersteld. Daarnaast wordt een beschrijving gegeven van wat hulpverlenerorganisaties en hulpverleners (extern) kunnen aanbieden om het herstelproces bij de cliënt te faciliteren. Dit hoofdstuk eindigt met een korte beschrijving van de twee gegeven training seminars.

Hoofdstuk 2 gaat over de vertaling, ontwikkeling en psychometrische eigenschappen van drie instrumenten met betrekking tot herstel. Twee instrumenten voor professionals zijn vertaald naar het Nederlands namelijk de Recovery Knowledge Inventory (RKI) en de Recovery Attitude Questionnaire (RAQ). Deze twee vragenlijsten worden door de professionals zelf ingevuld. Daarnaast is de Recovery Promoting Relationship Scale (RPRS) naar het Nederlands vertaald, een instrument specifiek voor de cliënt. Na een strikt

vertaalproces via de forward-backward vertaalprocedure van de vragenlijsten heeft er een pilot onderzoek plaatsgevonden waar 40 cliënten en 40 professionals aan deelnamen. Dit had tot doel om de inhoudsvaliditeit en de inhoudelijke begrijpelijkheid van de drie vertaalde instrumenten te testen. Dit hoofdstuk beschrijft verder het onderzoek naar de validiteit en betrouwbaarheid van de drie Nederlandse instrumenten. In totaal vulden 203 professionals de RAQ en de RKI in, en vulden 142 cliënten met ernstige psychiatrische problematiek de RPRS in. De factorstructuur, betrouwbaarheid en interne consistentie van de Nederlandse versies is onderzocht waarbij voor drie vragenlijsten (RAQ, RKI en RPRS) dezelfde analyse is uitgevoerd.

Als eerste is elk instrument onderworpen aan een confirmatieve factoranalyse die gebaseerd is op de oorspronkelijke factorstructuur zoals deze werd voorgesteld door de ontwikkelaars van de originele instrumenten. Op basis van de uitkomsten van deze confirmatieve factoranalyse zijn subschalen gevormd waarbij de interne consistentie (Cronbach's alpha) is berekend voor de Nederlandse versies. In dit tweede hoofdstuk wordt expliciet stilgestaan bij de psychometrische kwaliteiten van de Nederlandse RAQ, RKI en RPRS. De beschreven resultaten laten zien dat de Nederlandse instrumenten goede en betrouwbare instrumenten zijn om verschillende aspecten van herstel te meten.

Hoofdstuk 3 beschrijft de ontwikkeling van de Nederlandse versie van de Mental Health Recovery Measure (MHRM). In dit gedeelte van het proefschrift wordt stilgestaan bij de psychometrische kwaliteiten van de Nederlandse MHRM. De convergente en divergente validiteit van de vragenlijst wordt onderzocht. Om inhoud - en construct validiteit te onderzoeken wordt gebruik gemaakt van de volgende vragenlijsten ter vergelijking; de Hope Herth Index (HHI), de RPRS en de RAND (Vragenlijst naar ervaren gezondheid en gezondheidsgerelateerde kwaliteit van leven). De eerste analyse die is uitgevoerd is een exploratieve factoranalyse voor de MHRM. Door het bestuderen van de Catell's scree plot, en

het uitvoeren van een parallelle analyse, werden subschalen gevonden waarvan de onderlinge correlaties (Cronbach's alpha's) zijn berekend. Om de constructvaliditeit te berekenen, is gebruik gemaakt van de HHI, RPRS en de RAND. Dit derde hoofdstuk laat zien dat de Nederlandse versie van de MHRM een betrouwbaar meetinstrument is om te gebruiken voor onderzoek naar herstelprocessen van cliënten met ernstige psychische problematiek.

Hoofdstuk 4 beschrijft de effecten van het herstelondersteunende trainingsprogramma voor professionals op de attitude en de kennis ten aanzien herstel. Deze longitudinale effectstudie maakt gebruik van een variant van het stepped-wedge trial design namelijk, een design waarbij gebruik gemaakt wordt van twee onderzoeksgroepen, meerdere interventies en onderbroken tijdseries (a two group multiple intervention time-series design). Het stepped-wedge trial design is een design dat vooral gebruik wordt in epidemiologische effectstudies. Het design maakt gebruik van twee onderzoeksgroepen die at random zijn samengesteld. Elke onderzoeksgroep bestaat uit een negental subgroepen bestaande uit professionals van verschillende afdelingen binnen Impact.

De scholingsgroepen hebben na elkaar het eerste en tweede training seminar gevolgd. Elk seminar werd gedurende 6 maanden gegeven. Er vond een effectmeting plaats drie maanden na het starten van een seminar en na het beëindigen van elk seminar. In totaal werden de twee onderzoeksgroepen vijf maal na de nulmeting (T0) bevraagd (T1 tot T5) en vond T 5 plaats een jaar na het beëindigen van het trainingsprogramma herstelondersteunende zorg. De effecten op de kennis en de attitude ten aanzien van herstel van 203 professionals is op deze manier gemeten door gebruik te maken van de Recovery Atttude Questionaire (RAQ) en de Recovery Knowledge Inventory (RKI). De resultaten van dit onderzoek worden in hoofdstuk 4 van dit proefschrift beschreven en laten zien dat professionals, werkzaam binnen de geestelijke gezondheidszorg, een positievere attitude ten aanzien van herstel ontwikkelen gedurende- en na- de looptijd van de training herstelondersteunende zorg. De resultaten, wat

betreft kennis ten aanzien van herstel, bleken echter van tijdelijke aard. Verder geeft dit hoofdstuk inzicht in de praktische bruikbaarheid van het afgeleide stepped-wedge trial design. Dit onderzoek maakt duidelijk dat de variant van het stepped-wedge trial design een bruikbaar en goed design is voor gedragswetenschappelijk onderzoek en dan vooral voor onderzoek naar effecten van inhoudelijke implementatie trajecten.

Hoofdstuk 5 is een natuurlijk gevolg van hoofdstuk vier daar er wordt stilgestaan bij de indirecte effecten van het herstelondersteunend trainingsprogramma voor professionals op cliënt niveau**.** Hier wordt onderzocht of er veranderingen plaatsvinden ten aanzien van de door de cliënt ervaren hoop en self- empowerment. Tevens wordt de mate waarin de cliënt in staat is te leren en mogelijkheden ervaart om zich verder te ontwikkelen onder de loep genomen. Tot slot wordt onderzocht of de relatie met de professional als meer herstelondersteunend wordt ervaren door de cliënt. Om dit te onderzoeken, is gebruik gemaakt van de Mental Health Recovery Measure (MHRM) en de Recovery promoting Relationship Scale (RPRS). Deze vragenlijsten zijn afgenomen bij 142 cliënten, op zes tijdstippen, dezelfde tijdstippen als bij de professionals. Om de resultaten te analyseren, zijn de gemiddelden berekend per meetmoment en per instrument, uitgesplitst naar de verschillende factoren van de MHRM en RPRS. Daarna zijn de gemiddelde vergeleken over de verschillende meetmomenten en is onderzocht of er significante verschillen waren over de tijd heen. Verder is onderzocht of bepaalde cliënt karakteristieken van invloed zijn op de gevonden resultaten. De resultaten laten zien dat er voor de tweede factor van de MHRM een significante verandering zichtbaar was namelijk voor de factor ‘learning & new potentials’ over de tijd heen. Verder zijn significante verschillen gevonden tussen mannen en vrouwen. Mannen scoorden beter op de factor ‘self empowerment’ en ‘learning & new potentials’. De leeftijd van de cliënt heeft geen invloed op de gevonden resultaten. Wat betreft de relatie van

de professional met de cliënt werd deze gedurende, en na de training herstelondersteunende zorg, niet als meer herstelondersteunend ervaren door de cliënt.

Hoofdstuk 6: Algemene discussie

In het laatste deel van dit proefschrift wordt gereflecteerd op de resultaten van het onderzoek die zijn beschreven in dit proefschrift. De algemene bevindingen worden samengevat en bediscussieerd. Verder worden aanbevelingen gedaan voor toekomstig onderzoek met betrekking tot herstel en herstelondersteunende zorg.

Het is van groot belang dat er een eenduidige operationele definitie van herstel wordt ontwikkeld die voor onderzoeksdoeleinden kan worden gebruikt. De instrumenten die zijn beschreven in dit proefschrift dienen verder te worden onderzocht om de psychometrische eigenschappen ervan verder te onderbouwen. Daarnaast is het nodig meer inzicht te krijgen in welke herstelondersteunende competenties nu wel of niet een bijdrage leveren aan het individuele herstelproces. Verder zijn meer longitudinale onderzoeken nodig naar de langdurige effecten van trainingen ‘herstelondersteunende zorg’.

In dit laatste hoofdstuk worden verder aanbevelingen gedaan om de huidige praktijksituatie in Nederland meer herstelondersteunend te maken. Hierbij wordt de ontwikkeling van ervaringsdeskundigheid en de inzet van ervaringsdeskundigen in de huidige geestelijke gezondheidszorg ten zeerste aanbevolen. Bovendien is het van belang dat alle lagen van een geestelijke gezondheidsorganisatie worden getraind in de principes, visie en handelswijze die kenmerkend is voor herstelondersteunende zorg. Dit om een complete cultuuromslag bij de behandeling en de begeleiding van cliënten met ernstige psychiatrische problematiek te bewerkstelligen. Dit zal de positie van herstel en de positie van de cliënt binnen de GGz versterken. Tot slot wordt in dit hoofdstuk een kort overzicht gegeven van een

aantal Nederlandse initiatieven met betrekking tot herstel en herstelondersteunende zorg in Nederland.

Dankwoord

Dankwoord

Herstellen van een psychose is een proces wat telkens weer enorm veel energie en doorzettingsvermogen vraagt. Het gaat niet vanzelf. Een bijzondere boom - zoals een knotwilg - kan hier symbool voor staan.

"Je takken worden weggerukt,
Hard en meedogenloos,
Even lijkt het leven niet meer te bestaan,
Heftig zoekend naar een nieuwe bron van leven,
Water, warmte, ruimte, mineralen, vezels,
Eindelijk…, groei,
Schoorvoetende zachte blaadjes,
Kwetsbaar, teer,
Reikend, verlangend naar de voedende kracht van de zon,
Rustend, vertrouwend op een steeds voller wordende stam..."

Werken als science practicioner heeft veel voeten in aarde. De brug slaan tussen theorie en praktijk is geen gemakkelijke opgave. Je denkt en handelt vaak vanuit je gevoel en vanuit je ervaring. Onderzoekermentaliteit *pur sang* is mij niet op het lijf geschreven. Het is iets wat ik mezelf opnieuw moest aanleren. Mogelijk dat dit mij gemakkelijker was afgegaan direct na mijn studie psychologie hier op de universiteit van Tilburg. Het werd me toen aangeboden, maar ik koos ervoor eerst binnen de praktijk te groeien.

De praktische vertaling van onderzoeksresultaten naar de praktijk en deze uitdragen naar anderen toe, is iets wat bij mij past en het heeft mij veel plezier gegeven de afgelopen vijf jaar. Presentaties geven is iets wat ik erg leuk vind.

Het schrijven van een proefschrift kan je vergelijken met het snoeien van 93 beschermende knotwilgen. Je hebt er voor nodig: veel goede zin, motivatie, geduld, uithoudingsvermogen, goede randvoorwaarden zoals goede materialen en als het even kan een zonnetje, een stevige ondergrond maar vooral anderen die je willen helpen….

Aan het tot stand komen van dit proefschrift hebben veel mensen bijgedragen.

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Daarnaast zijn er de medewerkers van de GGz Breburg die eveneens gedurende zes metingen, twee jaar lang, vragenlijsten hebben ingevuld. Het onderzoek vond plaats in een roerige periode binnen de GGz . De fusie met de GGz Tilburg en het omvormen van vertrouwde teams naar ambulante FACT teams, gebeurde immers tijdens de looptijd van dit onderzoek. Daarom mijn oprechte dank aan alle medewerkers die hebben meegewerkt.

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Greet Wilrycx
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About the author

About the author

Greet Wilrycx was born on October the 29th 1962 in Turnhout, Belgium. After her graduation from secondary school in 1981 (Mariagaarde Instituut, Westmalle, Belgium) she followed a study in Antwerp to become a teacher. (Provinciaal technisch instituut St.Godelieve, Antwerpen, 1981- 1983). After that she moved to the Netherlands and started her study psychology in 1985 at the University of Tilburg were she graduated in 1989 in a double curriculum (health psychology and clinical psychology). In 1989 she started working as a psychologist at the GGzBreburg voluntary. In 1990 she started her study to become a psycho-analytic psychotherapist at the RINO, Nijmegen and worked two years as a group psychotherapist at the Viersprong, Halsteren.

In 1992 she was offered a part time job at the GGz Breburg working as a group psychotherapist with people who were sexually and physically abused and with people suffering from a personality disorder. Ten years later she started working with people with severe mental illness. At this moment she is still working part time at Impact Breburg, the department of severe mental illness, more specifically at the VIP-team (acronym for Vroegtijdig Interventie Psychose) and she is also working as a psychologist/psychotherapist in her own practice at home.

In 2008 she started her work as a science practioner at the University of Tilburg, during one day a week.

Greet is mother of a son and a daughter in the age of 14 and 17.